

## D4.2. Report on design and implementation CBL internship and thesis

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### Partners

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Linköping University (LiU)

Łódź University of Technology (TUL)

Institut National des Sciences Appliquées (INSA Toulouse)

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## 1. Executive summary

The objective of the WP4 is to broaden the existing portfolio of educational formats by incorporating Challenge-Based Learning (CBL) into the structure of master's theses and internships.

This report provides a summary of the preparatory activities undertaken to develop a comprehensive implementation framework.

According to the proposal, Activity A4.2 of the WP4 outlines the partners will collaboratively design and implement processes for developing the CBL internship & thesis model.

*The partners will jointly develop a benefits strategy to increase the number of stakeholders interested to accept students for the CBL internship & thesis. The consortium universities will develop a scheme/guide for managing the CBL internship & thesis including curriculum internship recognition (ECTS) and thesis recognition (ECTS) as well as funding conditions for short-term or long-term students' mobility.*

This work will be followed by two pilot initiatives aimed at testing and refining the developed strategies and frameworks in real-world settings.

Following each pilot edition, the process will be systematically evaluated and refined to ensure continuous improvement. The project foresees the execution of two pilot editions of CBL internships or CBL theses over a 28-month period, from February 2025 to May 2027. Each edition will involve two students from each participating university, resulting in a total of four students per institution across both editions.

In total, a minimum of 16 students from the universities within the JUMP project consortium will complete a CBL thesis or CBL internship—four students at each participating institution.

## 2. Challenge-Based Learning (CBL) framework at the European Consortium of Innovative Universities (ECIU)

Partners of the JUMP project consortium are members of the European Consortium of Innovative Universities (ECIU), which has developed the ECIU Learning Opportunities (ELO) delivery model. This model is based on the educational offerings available through the Digital Experience Platform (DXP), accessible at <https://engage.eciu.eu>.

In 2023, the European Consortium of Innovative Universities (ECIU) developed a comprehensive model to ensure the quality of ECIU Learning Opportunities (ELOs) offered through its member institutions. This quality assurance process is essential for identifying and delivering the most effective learning opportunities, enabling learners to design personalized and flexible learning pathways aligned with the United Nations Sustainable Development Goals (SDGs).

Currently, two main types of ELOs are available at the ECIU level:

- ECIU Challenges – Real-life, open-ended, learner-driven projects that vary in duration and complexity.
- ECIU Micro-Modules – Short, focused learning experiences targeting specific disciplines, languages, or transversal skills.

The CBL model is the recommended pedagogical approach for both ECIU Challenges and Micro-Modules. As a result, all consortium's universities have prior experience in developing and implementing these innovative learning formats. The CBL model is widely recognized and understood across member institutions. Access to relevant information and learning resources is extensive, and National Agencies (NAs) receive both substantive and administrative support in this area. Furthermore, staff at ECIU member universities are actively encouraged to participate in CBL training programs.

ELO i.e. challenges and micromodules collectively form the foundation of the JUMP project main tangible artifact – Distributed Blended Interdisciplinary and Intersectoral CBL Minor. One of the key objectives of the JUMP project is to enhance this model by integrating internships and master's theses conducted within the Challenge-Based Learning (CBL) framework. While such activities—namely internships and theses—are already being carried out in collaboration with external stakeholders, particularly from industry, they are not yet implemented in a standardized or formally defined CBL structure.

Universities within the JUMP project consortium offer training courses that introduce the foundational principles of Challenge-Based Learning (CBL) to both students and academic staff. These courses are designed to build awareness and competence in applying the CBL methodology within educational and professional contexts.

The availability and structure of these courses vary across institutions. In some cases, participation is mandatory—particularly for students enrolled in programs that integrate CBL into their core curriculum. For university staff, these courses are typically offered as elective professional development opportunities, allowing participants to engage voluntarily based on their roles and interests.

These training initiatives play a key role in supporting the broader adoption of CBL by equipping participants with the necessary pedagogical tools and fostering a shared understanding of the model across the academic community.

Member universities of the JUMP project consortium are actively engaged in training and promotional activities to support the implementation of the CBL model.

At **Lodz University of Technology (TUL)**, training courses for staff are organized by the IL Education Department and funded through the European Social Fund. These courses aim to enhance the pedagogical competencies of academic staff in line with the CBL approach.

**Linköping University (LiU)** offers a comprehensive thirty-hour CBL training course through its Center for Higher Education Pedagogy. This structured program equips participants with the theoretical foundations and practical tools necessary for implementing CBL in academic settings.

**At INSA**, staff benefit from periodic workshops organized by the ECIU team. These sessions provide targeted support and foster the exchange of best practices related to CBL implementation.

The **University of Trento** actively supports staff development in Challenge-Based Learning through targeted workshops, resources for implementing CBL, and a commitment to innovative teaching practices. Staff Training Weeks have been organized, with focus on challenges and goals of an International Mobility. Informative videos about Challenge-Based Learning are available on the School of Innovation web site. These initiatives are organized through collaborations such as the ECIU University, FormID (the Centre for Competence in Staff Training and Educational Innovation) and the School of Innovation.

Across all consortium universities, local ECIU offices and CBL experts are actively conducting information and promotional campaigns. These initiatives aim to raise awareness and encourage both students and academic staff to engage with the educational opportunities offered by ECIU member institutions, all of which are grounded in the CBL methodology.

#### ***Action 4.2 of the WP4 Design and implement processes for CBL internship & thesis***

The Action 4.2 has been structured into the following stages:

1. Mapping and analysis of existing Internship and Master Thesis practices across consortium universities;
2. Exploration of the Internship and Thesis mobility funding opportunities;
3. Identification of key requirements and characteristics that CBL-aligned theses and internships should fulfill;
4. To map the internal implementation of potential solutions and facilitate discussions on joint implementation strategies among partners within the JUMP project consortium;
5. Development of a working definition for CBL theses and internships.

This will be followed by two pilot editions of the CBL internship or CBL thesis, during which activities will be continuously monitored and refined, culminating in the development of comprehensive guidelines.

### **3. Mapping and analysis of existing practices across consortium universities**

Among the universities participating in the JUMP project an analysis was carried out to identify current practices in the implementation of internships and master theses. The objective was to evaluate the potential for introducing CBL internships and CBL theses in an interdisciplinary and international context involving partner institutions.

## **Internships and Master's Theses in the Context of Challenge-Based Learning**

All four countries of the consortium universities: Poland, Italy, France, and Sweden are signatories of the Bologna Process, which aims to harmonize higher education across Europe. This shared framework facilitates joint implementation cross-border internships and theses, however national implementations vary significantly, which can bring some challenges and limitations when introducing CBL internships and CBL theses in international context.

Universities within the JUMP project consortium implement internships and master's theses in collaboration with companies and external organizations. While these activities often reflect the principles of Challenge-Based Learning (CBL)—such as addressing real-world problems and engaging with external stakeholders—they are not formally structured or systematized as CBL within the academic framework.

An overview of the rules of internship and thesis, as well as opportunities available at partner universities is provided below. For further details, please refer to the Appendices 1-4.

### **UniTrento**

#### **INTERNSHIPS**

- 150 hours, 6 ECTS
- 225 hours, 9 ECTS

At University of Trento the internship has a minimum duration of 150 hours if the credits required by the course of study are equal to 6 CFU (ECTS) and 225 hours if the credits required by the course of study are equal to 9 CFU (ECTS). The maximum duration of an internship is 5 months. UniTrento students must have achieved a minimum number of credits before starting an internship:

- 90 CFU for Bachelor's degrees
- 30 CFU for Master's degrees

Students of the University of Trento can choose from two options:

- Internal internships, at the University
- External Internships, at companies or other organizations

Internships are carried out within the university departments (internal) or at an organization that collaborates with the department (external), to allow interns to integrate knowledge acquired during their studies and help them with their career choices.

Students can find Internship and work placement opportunities on the Job Guidance platform.

A range of channels and services are available to students and graduates to facilitate access to request/offer meeting-points, including those related to internships and job opportunities. The University collaborates with multiple organizations to promote selective competitions for both

curricular and non-curricular internships. Additionally, it offers international opportunities, enabling students to gain valuable experience abroad through various mobility programs and partnerships.

## **UniTrento**

### **MASTER THESIS**

Language: English

ECTS: 18 ECTS, or 24 ECTS in some Departments

A Master's thesis is a piece of scientific work that addresses a number of few specific research questions, builds on the existing academic literature and adopts the appropriate methodology. A Master's thesis must demonstrate sufficient knowledge of the relevant scientific and/or academic literature and the ability to critically engage with it.

The final exam consists of a presentation and discussion of the Master's thesis in front of a committee comprising five members, among which the supervisor and the discussant.

Students are allowed to spend a period of at least 3 months abroad to undertake research for her or his thesis or final exam, all over the world (with few exceptions). The mobility can be organized with various types of institutions including laboratories, research centers, companies and professional studios.

## **INSA Toulouse**

### **INTERNSHIPS**

- 1st Year, 4 weeks
- 4th Year, 12 to 16 weeks, 9 ECTS
- 5th Year, 20 to 24 weeks, 21 ECTS

At INSA Toulouse, internships are an integral part of the engineering education pathway. These professional experiences aim to develop students' technical, operational, and interpersonal skills by immersing them in real-world contexts.

Here is an overview of the internship structure at INSA:

- 1st Year – Worker Internship (4 weeks): Students become familiar with industrial environments and work culture. This internship is primarily observational and manual.
- 4th Year – Assistant Engineer Internship (12 to 16 weeks, 9 ECTS): Conducted between June and September (Semester 8 to 9), this internship allows students to take on technical responsibilities and contribute to engineering tasks within a host organization.
  - Minimum duration: 12 weeks

- Location: France or abroad
- Credit transfer: 9 ECTS in Semester 10
  
- 5th Year – Final-Year Project (PFE) / Engineer Internship (20 to 24 weeks, 21 ECTS)
  - Conducted from February to June–September (Semester 10)
  - Minimum duration: 5 months
  - Location: France or abroad (companies or research labs)

Students apply for internships directly to companies, either by responding to published offers or through unsolicited applications. INSA validates each internship by issuing a formal internship agreement outlining the student’s responsibilities and the legal framework. Students are supervised by a company tutor on site.

## **INSA Toulouse**

### **RESEARCH PROJECT AND THESIS**

Language: English

6-7 students

At INSA Toulouse, all students enrolled in the 4th year of the informatic and electronic engineering tracks participate in a PIR – Innovation and Research Project, which shares similarities with what the JUMP project defines as a CBL thesis.

Students work in teams of 6–7 peers from the same academic track. The project spans the entire academic year, with the literature review conducted in the first semester and the main development and implementation phase taking place in the second semester.

Each team is supported by an academic tutor who ensures regular progress follow-up and evaluates the work. In some cases, especially for innovation-oriented topics, an industrial co-supervisor, when the project is carried out in collaboration with a company or external stakeholder.

For the IS track (Computer Systems), the PIR topic is also used as the research project in the 5th year, providing a strong continuity in research orientation.

This module represents a strong opportunity for students to develop early research competencies and is well aligned with the objectives of CBL theses in the JUMP framework, especially when topics are co-designed with external stakeholders or innovation-oriented.

## **Lodz University of Technology**

### **INTERNSHIPS**

at programmes with a practical profile

- first-cycle programmes, 6 months, 24 ECTS

- second-cycle programmes, 3 months, 12 ECTS

at programmes with a general academic profile

- first-cycle programmes, at least 6 weeks, minimum 6 ECTS
- second-cycle student work placements, at least 4 weeks, minimum 4 ECTS

**At Lodz University of Technology (TUL)**, internships are usually an integral and compulsory part of the study programs, embedded in the curriculum. The duration, timing, and ECTS credit allocation are determined by individual faculties and study programs. Internships must be completed within a specified period during the course of study. Students may complete their internships in various formats, including:

- University-partnered programs, such as:
  - Diamond Internships (corporate placements),
  - Amber Internships (placements in small and medium-sized enterprises),
  - Emerald Internships (placements in public institutions).
- Individually arranged internships, provided they meet academic and administrative criteria.

Internships are mandatory at the University for students following a practical profile, and for those studying a general academic profile, only in first-cycle studies.

## **Lodz University of Technology**

### **MASTER THESIS**

Language: English or Polish or other language different from the medium of instruction

ECTS: 20 ECTS

The master thesis at TUL is a crucial component of the graduate program. It is an independent development of a solution to a specific scientific or practical issue or an artistic achievement, presenting the student's knowledge and skills in accordance with the learning outcomes specified for a given field, level and profile of education and the ability to independently analyze and draw conclusions. The thesis should address a specific research problem or engineering challenge. The diploma thesis is evaluated by the supervisor and an independent reviewer. Presentation and defense take place during the diploma exam.

While certain master's theses are conducted in collaboration with external organizations, this is not universally the case across all departments. In some academic units, theses and internships are carried out internally, in alignment with the principles of the Challenge-Based Learning (CBL) model. While these projects are inspired by the CBL framework, they are not always structured according to a fully formalized CBL framework. Students—though representing a single disciplinary background—

are encouraged to approach complex problems from diverse and interdisciplinary perspectives. Furthermore, a number of master's theses are supervised and executed entirely within the home departments of TUL, without the involvement of external companies.

At the Lodz University of Technology, it is allowed that a student's diploma thesis may be created based on a team project, provided that the student's participation in the implementation of the project is specified in detail.

In addition, the diploma thesis may be carried out, with the consent of the relevant Vice-Dean outside the Lodz University of Technology: at another Polish or foreign university, as well as in a Polish or foreign research center. Furthermore, at the request of the student, the thesis may be submitted in a language other than the language of instruction (the language of studies).

## **Linköping University (LiU)**

### **INTERNSHIPS Industrial Placement**

ECTS: 6 ECTS

Whether an internship is required at Linköping University (LiU) depends on the specific program or course a student is enrolled in. Some programs offer internships as electives to enhance practical experience. At the LiU engineering programs, one electable internship course is available, where engineering students from all programs can have the opportunity to gain practical experience.

The Industrial Placement course at Linköping University provides students in engineering and science programmes with a structured opportunity to gain real-world, full-time experience in a relevant workplace for at least three consecutive weeks. The course bridges academic studies with professional practice, emphasizing collaboration, responsibility, and technical problem-solving.

Students are expected to find and plan their own placement, engage actively in a supervised work environment, and reflect on their experience in a detailed final report. The placement must involve technical or scientific tasks and offer integration into a professional team.

The overarching goal of the industrial placement is to provide students with meaningful exposure to the working environment of a company or organization aligned with their area of academic study. Students are expected to engage in technical or scientific activities within the organization and work collaboratively in a team environment.

To be eligible for the course, students must have completed at least 80 ECTS credits from mandatory courses in semesters 1–4 of an approved programme within the Faculty of Science and Engineering.

## **Linköping University (LiU)**

### **MASTER THESES**

Language: English or Swedish

ECTS: 30 ECTS

At LiU the Degree Project – Master’s Thesis (30 ECTS) is the final and most comprehensive course in LiU’s engineering master’s programmes. It allows students to independently apply and deepen their academic knowledge through a substantial research or development project, carried out either at LiU or externally (e.g., in industry or abroad). Entry requires at least 240 completed ECTS credits, including all mandatory courses from semesters 1–6 and 30 advanced-level credits in the main field of study.

Students are expected to plan, conduct, and report their project professionally, demonstrating analytical thinking, technical skill, and awareness of societal and ethical dimensions. Supervision and assessment involve a planning report, a mid-way assessment, a final thesis, oral presentation, written reflection, and acting as an opponent. The entire process is graded as Pass or Fail. Projects must be clearly documented, ethically conducted, and presented publicly, unless exemptions apply. Attendance at three thesis presentations is mandatory.

The main subject areas that are permitted within each study programme are described in the programme syllabus. Any individual subjects that may be relevant to the main subject area are to be determined by the relevant faculty programme board.

The work is carried out in the form of:

- an internal degree project located at one of the participating departments at LiU
- an external degree project located at a company, government agency, or other organization in Sweden or abroad, that an examiner has assessed is able to manage a degree project that satisfies the requirements, or
- a degree project within an exchange agreement in association with study abroad, whereby all study results are to be credited to the student by the relevant faculty programme board.

Although most internships are not framed or labeled as CBL, most engineering thesis work is with external providers, mostly industry, but also governmental or societal organizations. Academia (research groups) are also often a provider of thesis subjects/problems.

The students are responsible to find the external master thesis supplying companies themselves.

In cases in which two students carry out a degree project together, the contribution of each student is to be specified. The extent of the work is to correspond to the extent of two individual projects.

Degree projects carried out in collaboration between more than two students are not permitted.

Both oral and written reports of the degree project are to be made, in Swedish or English. For the international Master's programmes, both the oral and written examination should be made in English. The faculty programme board can allow the reporting to be carried out in another language than Swedish or English.

The oral presentation is to take place in public, unless there are exceptional circumstances that this should not be done. The written report is to be in the form of a professionally produced degree project thesis.

## 4. Exploration of the Internship and Thesis mobility funding opportunities

Funding opportunities for student mobility related to CBL internships and CBL master's theses at partner universities were examined. As participants in the Erasmus+ programme, UniTrento, LiU, INSA and TUL students are eligible for financial support for short-term and long-term mobility stays. In addition to the extensive mobility funding available through the Erasmus+ programme, each university also has access to other numerous opportunities to support internships and the completion of master's theses abroad. Universities support students by actively promoting internship opportunities through its' official websites, publishing them in dedicated databases, and integrating them into scholarship assignment processes.

### UniTrento

UniTrento student enrolled in a bachelor's, master's or doctoral programme has the opportunity to obtain a scholarship to spend a period of between 2 and 6 months at an institution, research body, company or other type of host organization based outside Italy. Students are entitled to receive a scholarship under the following conditions:

- Traineeship during studies: up to a maximum duration of 4 months.
- Post-graduation traineeship: up to a maximum duration of 3 months.

If the traineeship takes place in one of the Erasmus+ programme countries, the monthly scholarship amount ranges between €400 and €500. Additionally, students who fall under the category of "students with fewer opportunities"—primarily based on income—are eligible for a supplementary amount of €250 per month.

The programme THESIS ABROAD allows students to spend a period of at least 3 months abroad to undertake research for your thesis or final exam.

The amount of the scholarships, listed below, are subject to taxation and vary according to the destination country and the results of the student's ISEE (income assessment).

The amount shown is the total contribution for a minimum period of mobility of at least 3 months. This sum remains unvaried, even for longer periods abroad.

27 countries of the European Union and EFTA/EEA countries (Iceland, Liechtenstein, Norway and Switzerland) - Lump sum (3 months)

- 900 euros with ISEE assessment of more than 25,000 euros;
- 1,650 euros with ISEE assessment of less than or equal to 25,000 euros.

Outside Europe - Lump sum (3 months)

- 2,100 euros with ISEE assessment of more than 25,000 euros;

- 2,850 euros with ISEE assessment of less than or equal to 25,000 euros.

## **TUL**

Within the framework of the Erasmus+ program, it is possible for TUL students to carry out short and long-term trips as part of internships or studies. ERASMUS+ Higher education under the "Mobility of Students and Staff in Programme Countries" component offers:

- mobility of students to and from partner universities abroad to pursue part of their studies there;
- mobility of students and graduates to complete internships in institutions, companies and organizations in programme and partner countries;

Each candidate has a capital of 360 days of physical mobility that can be dedicated to Erasmus+ mobility for studies/traineeship at each cycle of studies.

For short-term mobility lasting from 5 to 30 days, funding is provided at a rate of €79 per day for the first 14 days, and €56 per day from the 15th to the 30th day. Additionally, the student receives a travel allowance based on the distance calculator, with an increased amount available for Green Travel. Recruitment for long-term internships (lasting 60 days or more) at companies or universities abroad is held every 1–2 months. The grant ranges from €700 to €820 per month, depending on the destination country.

Recruitment for long-term study mobility (also 60 days or more) takes place four times a year, with funding ranging from €600 to €670 per month, depending on the country.

In both cases, students receive a travel allowance based on the distance calculator, along with funding for a minimum of 2 travel days. For those choosing Green Travel, the scholarship is increased accordingly.

Students who receive a social scholarship or hold a disability certificate are eligible for an additional €250 per month as an inclusion support grant.

In addition, students of Lodz University of Technology have the opportunity to participate in paid internships in one of 80 countries, including Sweden and France, through the IAESTE programme—a confederation of national committees representing academic, industrial, and student interests.

Internships last from 6 weeks to 12 months. Participants receive a salary that covers the cost of accommodation, meals, and participation in a cultural programme.

## **INSA**

INSA full-time students participating in an international internship are eligible to receive a monthly grant ranging from €400 to €600, depending on the cost of living in the host country. The duration of eligible internships spans from 2 to 12 months.

In addition, students with fewer opportunities—including those meeting social or disability-related criteria—may qualify for supplementary financial support to promote equal access and participation.

Other funding opportunities are also available for INSA students undertaking international mobility, offering additional options to support their academic and professional development abroad:

- French Government Aid for students who are recipients of a French means-tested grants
- Regional Grant – Aide Mouv'Occitanie for students enrolled in a HEI located in Occitanie region with priority given to students with limited financial resources
- INSA Foundation or departmental funds

## LiU

Linköping University (LiU) offers various mobility and funding opportunities for internships and thesis Projects, both within Sweden and internationally, especially through EU programmes and internal scholarships. The scholarships are typically application-based and play a significant role for the students at the Technical faculty to finance their studies abroad.

### Erasmus+ Traineeship (Internship or Thesis Abroad)

- LiU participates fully in the **Erasmus+ KA1** programme for both internships and thesis-related placements in EU/EEA countries.
- Typical scholarship amounts range from **€660–€710 per month**, depending on the destination.
  - Group 1 countries (Denmark, Finland, France, Germany, Italy, etc.) ~ **€710/month**
  - Group 2/3 (e.g. Spain, Portugal, Eastern Europe) ~ **€660/month**
- Funds may also include:
  - A **travel grant** (~€20–€50+ lump sum)
  - Extra travel days for "sustainable" transport
- Paid in two instalments: ~70% at departure and the remainder upon return.

*Useful details: internship must be 2–12 months, with ≥60 days for thesis-related work .*

### Research Preparatory Scholarships (Internal, LiU BKV)

For students enrolled in advanced-level preparatory research courses (e.g. prior to thesis):

- LiU's **Research Preparatory Scholarship** (through the Department of Biomedical & Clinical Sciences) covers the Swedish Board of Student Finance (CSN) support level.
  - Equivalent to **standard Swedish grant + loan** for full-time studies.
  - Granted for up to **two 20-week courses** (maximum 40 weeks total)

- Offers **stipends for living expenses**, tax-free, but not employment.
  - Note: no vacation, per diem, insurance beyond foreign visitor cover

### Other Funding Options

- **LiU International Scholarships:** For fee-paying international master's students (non-EU/EEA). Covers up to 50% of tuition fees - only for master's programmes, not mobility. While primarily for tuition support, it may indirectly assist students planning international mobility by reducing financial burdens
- **Swedish Institute (SI) Scholarships:** external funding opportunities for international students (not LiU-specific), compete nationally; can include mobility support.
- **CSN loans and grants:** Even EU/EEA students may apply; loans may cover travel costs
- **Erasmus+: extra allowances:**
  - Up to **€250/month** additional if you bring a child
  - Support for students with disabilities
- **ECIU University Mobility Programmes** – supports challenge-based international projects and mobility. LiU is part of the European Consortium of Innovative Universities (ECIU), which offers students opportunities to engage in international projects and challenges. Through ECIU, students can participate in mobility programmes that may involve internships or thesis work across Europe.
- **Industry Collaboration Support** – LiU has strong ties with various industries, particularly in the Linköping Science Park, which hosts numerous companies. Many master's programmes offer opportunities to undertake internships or write theses in collaboration with these companies, both within Sweden and internationally (may include financial support).
- **Private foundations scholarships** – may cover expenses related to mobility and exchange.
- Moreover, some organizations that offer and announce master thesis can cover travel costs.

### Summary Table

Funding Type	Amount	Duration / Conditions
Erasmus+ Traineeship	€660–€710/mo + travel & green-travel bonus	2–12 months, minimum 60 days (or 30 days with a virtual component)
Research Prep Scholarship (LiU)	CSN-level grant + loan (~Swedish standard living)	Up to 40 weeks
LiU International Scholarship	Up to <b>50% tuition waiver</b> (masters only)	1–2 semesters
SI Scholarships & CSN	Varies by programme	SI / CSN rules apply

The various opportunities can vary between the different faculties.  
For further details, please refer to the Appendices 1-4.

## 5. Identification of key requirements and characteristics that CBL-aligned theses and internships should fulfill

As part of the initial phase of Task WP4.2, efforts were directed toward defining and characterizing Challenge-Based Learning (CBL) internships and master's theses. To establish a shared understanding across the consortium, a structured discussion was conducted, focusing on key dimensions of the CBL model. These discussions were organized into the following thematic areas:

### **a) Organizational Aspects**

Including a collaborative and communicative team structure, a duration, ECTS credit allocation based on institutional and European standards, defined team sizes, and alignment of project themes with globally relevant societal challenges.

### **b) Roles and Responsibilities**

Including clearly defined involvement of external stakeholders along with a mutual understanding of expected outcomes and contributions.

To ensure effective supervision within the Challenge-Based Learning (CBL) model, academic staff (University supervisors) are required to undergo thorough preparation. This includes participating in structured training sessions focused on CBL methodology and supervision practices, accessing detailed guidelines and receiving a clear definition of their roles, responsibilities, and expected outcomes. To encourage academic staff involvement, several motivational measures are proposed. These could include issuing certificates that acknowledge collaboration with industry and experience in CBL supervision or introducing a digital badge system to document professional development.

The roles of industry and community partners should be clearly defined. They are expected to co-create challenge topics that reflect real-world issues and align with academic goals, provide mentorship and continuous feedback throughout the internship or thesis period, and actively participate in student evaluations, including reviewing final presentations and deliverables.

Students responsibilities include selecting and co-developing internship or thesis topics in collaboration with providers and academic supervisors, and meeting all defined deliverables, timelines, and assessment criteria.

### **c) Monitoring, Assessment, and Evaluation**

Evaluation of Student Work

Student work will be assessed in accordance with the university's academic standards. The evaluation process will incorporate feedback from both academic and external supervisors to ensure a comprehensive and balanced assessment.

Students will be encouraged to reflect on their learning experience by considering key questions such as:

- What real-world challenge are you addressing?
- How have you engaged with relevant stakeholders?
- What innovative approaches or solutions have you explored?
- What measurable impact has your work achieved?

A concise and anonymous satisfaction survey will be developed and submitted to students, academic supervisors, and external providers. The survey will evaluate aspects such as communication, support, learning outcomes, and overall satisfaction with the experience.

#### **d) Legal Considerations**

The legal framework for the learning opportunity involves establishing appropriate agreements, including bilateral contracts between the university and the provider, as well as trilateral agreements involving the university, challenge provider, and student. These contracts will address key legal aspects such as intellectual property rights, confidentiality clauses, clearly defined roles and responsibilities, and provisions for insurance and liability.

#### **e) International Implementation**

To explore the feasibility of utilizing the ECIU Engage platform, facilitating effective student-provider matching, to support international implementation by posting of CBL challenges and CBL thesis opportunities.

## **5.1. CBL theses and internships key aspects**

The **structure of internships and theses** was discussed by the team, resulting in the identification of key aspects, which were subsequently organized into five thematic groups to support effective implementation.

### **1. Team work**

- Team (group) work – minimum 2 students
- Common challenge, but each student needs to explore a different dimension within the indicated research domain

### **2. External partners**

- External stakeholder (Company, association or Public Administrations/Authorities) provides a challenge
- Stakeholder + group work + innovation

- A supervisor at the company is needed cooperating together with an academic supervisor
- Students define the subject in cooperation with supervisors
- External stakeholder involvement at various levels

### **3. Prerequisites / Knowledge / skills**

- Students should be familiar with CBL principles
- Linked to professional development

### **4. Challenge not a project**

- Wicked, open and sustainability related real-life challenge
- Open challenge
- Open-ended
- Related to societal change questions/problematic
- Immersive
- Innovation + challenge (Entrepreneurship)
- The challenge should be able to narrow down and customize to competences of students

### **5. Interdisciplinarity**

- Better if interdisciplinary (optional)
- It is good if the thesis is written by engineers from different programs eg. Computer scientist and an Industrial Management student
- Inter or multidisciplinary
- Interdisciplinarity could be in case of students and also challenge provider
- Open to international students (optional)

The aforementioned elements represent the minimum requirements for conducting the first pilot edition. The partners agreed that, in this initial pilot, internships will be carried out without necessarily involving mobility students. The inclusion of mobility students in CBL internship or CBL thesis teams is expected to be implemented in future editions.

## **5.2. CBL theses and internships requirements**

The following initial conditions that CBL theses should meet have been preliminarily outlined and discussed as part of the process to develop a final proposal:

The internship and MSc thesis are completed during the second year of master studies. External stakeholders are involved in the shaping of the challenge and during CBL implementation in the master programme.

**Requirements:**

- 1. Real-life and authentic topic**
- 2. Linking global issues with local realities**
- 3. Integration with the program learning outcomes**
- 4. End solution should be within the student's field of study**

Course teachers define what part of the learning outcomes of the course will be covered by the CBL thesis / internship

- 5. In accordance with university rules**
- 6. Available in English (report and thesis in English)**
- 7. Max 6 months/one semester to complete**
- 8. Preparation for CBL implementation - first year students**

First CBL project – introduction project is implemented for first year students of the master studies.

- 9. Preparation of the company employee for CBL implementation. Stakeholder is defining a problem/idea suitable for CBL and ensure organization's representative commitment throughout the entire process**

- 10. Students should work in pairs/groups**

- 11. Multidisciplinary and Multicultural team**

Students are working in multidisciplinary teams consisting of 4-5 (at least 2) students with diverse, complementary background and different specializations and profiles within their programme of study.

- 12. Student/University/Company agreement**

- 13. Way for commission a thesis**

- recruitment/employment
- commission a thesis; company pays a fee or remuneration according to the contract
- University driven – cooperation agreement concluded between the company and uni. University is responsible for recruiting the student

- 14. The company is able to designate an employee to liaise with University**

Active Engagement from Challenge Providers

**15. Team building / ice breaking courses before or during the CBL thesis completion  
PREREQUISITES**

A **CBL Thesis and Internship definition form** has been adapted based on the ECIU Learning Opportunities form. The draft table has been prepared to support the definition and coordination of both CBL theses and CBL internships. The table is included as **Appendix 5** to this report.

### 5.3. Mapping the internal implementation of potential solutions and facilitate discussions on joint implementation strategies among partners within the international project consortium

The similarities and differences in the implementation of internships and master's theses across universities within the project consortium have been examined, resulting in the development of a roadmap for joint implementation that promotes cross-border academic collaboration in an international context.

University	Activity	semester/year	duration	number of credits	Number of students
<b>UniTrento</b>	Internship	2nd cycle	150 hours 225 hours	6 ECTS 9 ECTS	2-3
	Master thesis	4th semester	one semester	18 or 24 ECTS	2-3
<b>INSA</b>	Internship	4 <sup>th</sup> year (8 <sup>th</sup> to 9 <sup>th</sup> semester)	12-16 weeks	9 ECTS	1
		5 <sup>th</sup> year – final year project	20-24 weeks	21 ECTS	
	Research project/Thesis	4 <sup>th</sup> year	spans one academic year	4 ECTS	6-7
<b>LIU</b>	Internship – industrial placement	first cycle	160 hours	6 ECTS	
	Master thesis	last semester		30 ECTS	2
<b>TUL</b>	Internship – practical profile	2 <sup>nd</sup> cycle	at least 3 months	at least 12 ECTS	2-3

	Internship - general academic profile	2 <sup>nd</sup> cycle	at least 4 weeks	minimum 4 ECTS	2-3
	Master thesis	last semester – 3 <sup>rd</sup> or 4 <sup>th</sup>	one semester	20 ECTS	2-3

The above individual elements have been analyzed and systematically organized into categories of similarities and differences.

#### Similarities:

- All universities include both internships and thesis projects as part of their academic programs.
- Each institution assigns ECTS credits to internships and theses, aligning with the European Credit Transfer and Accumulation System.
- Master theses are typically conducted in the final semester of the program.
- Most activities involve small groups of students (typically 2–3), ensuring manageable supervision and personalized guidance.

#### Differences:

Aspect	UniTrento	INSA	LiU	TUL
Internship Duration	150 or 225 hours	12–16 weeks and 20 - 24 weeks	160 hours	4 weeks to 3+ months
Credits for Internship	6 or 9 ECTS	9 ECTS and 21 ECTS  4 ECTS for the PIR project (4th- year research project)	6 ECTS	at least 4 - at least 12 ECTS
Credits for Thesis	18 or 24 ECTS	no separate credit allocation for the thesis	30 ECTS	20 ECTS

Academic Level	2nd cycle	4th–5th year	First cycle & Master	2nd cycle
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At UniTrento there are opportunities for: CBL Internship and CBL Internship and thesis, the opportunity for CBL thesis only need to be explored.

At INSA, internships are primarily conducted in collaboration with companies. However, students have not yet gained experience working in teams. Additionally, there is no formal master thesis in the traditional sense, as found at other universities.

At LiU internships and master's theses are typically conducted in collaboration with companies, and students usually complete them in pairs.

At TUL, it is possible to complete a CBL thesis or CBL internship, as well as CBL thesis and CBL internship in collaboration with a company. For the implementation of the Pilot 1 the four-semester *Smart Manufacturing and Management* programme was selected. This second-cycle programme attracts students from a wide range of academic backgrounds, thereby reinforcing its interdisciplinary nature. Such diversity makes it particularly well-suited for piloting innovative CBL internship and CBL thesis, within an international academic framework.

The following is an overview of the main characteristics of this study programme.

TUL programme	activity	semester	credits	possible number of students
Smart Manufacturing and Management programme	internship	3 <sup>rd</sup> semester	6 ECTS	2-3
	internship	4 <sup>th</sup> semester	6 ECTS	2-3
	final project - thesis	4 <sup>th</sup> semester	20 ECTS	2-3

The JUMP project team has identified and mapped potential connections between consortium partners, analyzing opportunities for the joint implementation of CBL internships and CBL theses in an international academic environment. This analysis lays the groundwork for fostering deeper collaboration and mobility among institutions, students, and supervisors across borders.

Based on the mapping of ECTS credits and the duration of each module, a list of CBL activities, CBL internship or CBL theses, possible for implementation in an international context has been developed. The table below outlines the potential for conducting CBL internships and CBL master theses in teams composed of students from different partner universities. These opportunities should be carefully analyzed to ensure proper implementation in accordance with the academic and administrative requirements of each institution.

	number of credits	INSA	LiU	UniTrento	TUL
CBL internship	6				
CBL thesis	24				
CBL internship + CBL thesis	30				

Possible
  Need to be explored

## 6. Key Developments and Recommendations

The participating universities have collaboratively established a unified framework for the implementation of CBL internships and CBL thesis. The most significant proposed changes to current practices include:

**Group-Based Activities:** Internships should be conducted in collaborative group settings rather than individually.

**Challenge-Oriented Approach:** Instead of focusing on predefined projects or problems, students will engage with broader, open-ended challenges.

**Stakeholder Involvement:** The new model emphasizes the active participation of external stakeholders, including industry partners and community organizations both as Challenge providers and tutoring/mentoring activities during the activities.

An analysis of institutional capabilities indicates that it is feasible to implement internships and theses using the Challenge Based Learning (CBL) model within individual universities. Furthermore, the model is adaptable to European/international contexts, enabling cross-border collaboration and learning.

Pilot editions of the revised internship and thesis format will serve as a testing ground to identify necessary adjustments and enhancements. These pilots will inform the development of a scalable and sustainable model for widespread adoption across JUMP HEIs.

# Deliverable report

## D4.2 - Report on design and implementation CBL internship and thesis



## Appendix 1

### University of Trento (UniTrento) – Internship & Thesis in Master degree courses in English

#### UniTrento - Internship

An internship is a training period undertaken by students in order to gain relevant experience and skills in a particular field, often their field of study. During an internship period, students acquire knowledge of the working world and explore possible directions for their future career, while also learning about professions, technologies, work organization.

Internships provide a means of training and orientation and are encouraged by the University as an important opportunity to connect with the world of work.

**An internship does not constitute an employment relationship** as such, but **nonetheless the procedures involved** in undertaking an internship, established by law to protect both interns and companies, **must be respected**.

Internships always involve three actors: the **host company/institution** (the company, body, association, etc.), the **intern** (UniTrento students or graduates) and the **promoter**. **The University of Trento has the role of promoting internships for its students and recent graduates** (those who have graduated within the last 12 months).

*There are other types of internship, where the promoter may be a Job Centre (summer internships, work placements or back to work schemes). For information about these types of internships [Trento Employment Agency](#) or the local Job Centres.*

#### Duration and Credits

The students can **start the internship** according to what is established in the didactic regulations of their course. The duration of the internship must be consistent with its training program and congruent with the number of credits required. The internship has a minimum duration of 150 hours if the credits required by the course of study are equal to 6 CFU and 225 hours if the credits required by the course of study are equal to 9 CFU. The maximum duration of an internship is 5 months.

In the case of international internship projects, the Internship Delegate may authorize internship periods of longer duration.

The internship must comply with the provisions of law and the Department Regulations on the training and orientation internship, which can be found in the download section of the Departments' websites (an example for the Department of Information Engineering and Computer Science (DISI): <https://www.disi.unitn.it/education/educational-services/internship>)

The document contains all information about the internship activation and conclusion, start and end dates, suspensions, internship hours and absences etc.

## **Types of internships**

Students can choose from two options:

- **Internal internships**, at the University
- **External Internships**, at companies or other organizations

Students must have achieved a minimum number of credits before starting an internship:

- 90 CFU for Bachelor's degrees
- 30 CFU for Master's degrees

## **Internal internships**

Internal internships are carried out within the department or at an organization that collaborates with the department, to allow interns to integrate knowledge acquired during their studies and help them with their career choices.

### *How to apply for an internship - Information for students*

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- Make sure you have achieved the minimum number of credits required
- Choose and get in touch with a teacher who agrees to supervise your internship
- Choose a subject and draw up an internship plan with your supervisor
- Fill in the "Internal Internship Preliminary Form" (available in the download box), that states that you have started an internship period, and submit it to the Student Support Office

### *Internship conclusion:*

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- At the end of their internship, students must submit a final report that will be approved by their supervisor, who will also issue a document certifying the internship program they have completed ("Dichiarazione fine tirocinio" available in the download box). If the internship program is a part of the students' work for their dissertation they do not have to submit a final report.
- Students must submit the "Dichiarazione fine tirocinio" and their final report to the Ufficio Gestione Studenti within the deadline in place for their graduation session.

## **External internships**

### *How to apply for an external internship - Information for students*

- Make sure you have achieved the minimum number of credits required
- Contact the [Job Guidance Office](#)

On the [Job Guidance platform](#) the students can find Internship and work placement opportunities.

Various channels and services exist for students and graduates to make use of request/offer meeting-points, both for internships and job offers.

## **Competitive Selection Calls for Internships**

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The University collaborates with various bodies to publicise selective competitions for internships, both curricular and otherwise.

Before submitting your application, you should read the requirements, end-user information and necessary documentation carefully, as well as the method of applying and time-limits for submitting

the application. Further information is available at the webpage Competitive Selection procedures for internships.

### **Esse3 Internships and Jobs**

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Esse3 is the information system used by the University of Trento to manage teaching and students. Having first [logged](#) on, at Esse3 Internships and Jobs you can access the area dedicated to this information: in the Opportunities section you will find internships and job offers listed by the companies accredited to the platform and you can apply directly on the platform, attaching your CV and a personalized introduction.

For each application submitted you will receive an email of confirmation that the application has been sent and on the platform in the “My opportunities” section, you can review the offers you have saved or, in the “My Applications” section you can see the job offers which you have applied for.

***Please note:** In Italy, job mediation must not involve costs for the candidates. On the other hand, it is possible that, in other countries, costs may be charged to the candidate selected, for the work carried out: this University does not allow this type of job opportunity to be publicised on its announcements platform. Help us by flagging up any such requests for money or other anomalies, in order to avoid incorrect use of the announcements platform. For information, the firms participating are bound by **terms of use**.*

### **Direct contact with firms accredited to Esse3 Internships and Jobs**

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On the [Esse3 Internships and Jobs platform](#) you will find the “Companies” section where you can review the firms which the University has accredited and research by business sector or by directly inserting the name of a firm which interests you.

Each accredited firm can publish a short description of itself, together with links and further information. In this way you can evaluate potential spontaneous applications, offering to undertake an internship or work experience.

### **AlmaLaurea profile**

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The University of Trento is part of the [AlmaLaurea Consortium](#).

AlmaLaurea is an **interuniversity consortium** currently **representing 82 universities**, that is, about **90% of graduates** in Italy. The main idea is to follow students, so graduates, even after graduating, to assess the actual conditions of their studies in relation to the opportunities of real life as in the working environment. AlmaLaurea system also involves an Ltd. company, namely AlmaLaurea srl, which creates links between companies and graduates.

There are two goals:

- To collect information and assessment reports from graduates for the universities, stating their **university studies** and **employment status**. Analysis of data collected and the statistics are made available to the public and may **help young people make their university and career choices**, while guiding university administrators in **planning educational programmes and activities**
- **To provide online CVs** of newly-graduated students and graduates who already have work experience. The database acquires an additional 150,000 new CVs every year (translated into English) and is a unique recruitment tool in Italy in terms of size, quality and prompt updating.

The University of Trento, in order to undertake intermediary activities regarding requests/offers of work, must:

- make available the CVs of students, of those about to graduate and those who have graduated within the last 12 months;
- send their profiles to the Borsa Continua Nazionale del Lavoro, via the [Cliclavoro](#) portal.

Therefore, the accredited firms can view and download the profiles of students, and graduates within the 12-month time-limit. The use by firms of such CVs is bound by a terms of use agreement. Students and graduates are recommended to keep their Almalaurea profile updated.

### **Career opportunities in the EU**

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UniTrento, together with 4 other universities, was selected by Epso (European Personnel Selection Office) as partner in Italy of the "EU Careers Ambassadors" Program for the 2020-2021 academic year. The EU Careers Ambassador is a student, that for one year is available for other students with the task of promoting career opportunities at the European institutions. It is possible to follow the Italian EU Careers Ambassadors and get in touch with them on Facebook and Instagram EU CAREERS ITALY.

### **Opportunities not managed by Job Guidance**

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The University also offers various opportunities for internships or research abroad. What is on offer, can be seen at the [Open Selection Calls page](#).

The traineeship can be either in an [Erasmus+ country](#) or in [the rest of the world](#).

Other bodies also offer opportunities:

- [Opera Universitaria](#)
- [FSE- Trento](#)
- [Eures](#)
- [Agenzia del Lavoro di Trento](#)
- [Vetrina lavoro Hi-Jobs](#)
- [Garanzia Giovani](#)
- [Servizio Civile](#)
- [Aiesec](#)
- [Elsa](#)
- [Stage4eu](#)

The internship opportunities within the **Erasmus program** are available here:

<https://www.unitn.it/en/international/going-abroad/traineeship-abroad>

### **DISI Industry**

DISI Industry (<https://industry.disi.unitn.it/>) is an online recruiting platform for students and Industry offered by the [Department of Information Engineering and Computer Science \(DISI\)](#) of the University of Trento.

Companies that are looking for candidates can provide their offers through this platform.

DISI students and alumni that are looking for **internship/thesis/job opportunities** will find in this platform a plethora of companies describing what they do and the profile(s) that best suit their work environments. The expression of interest to more than one position is allowed.

## **INTERNSHIP - Information for students**

As a UniTrento student enrolled in a bachelor's, master's or doctoral programme you have the opportunity to obtain a scholarship to spend a period of **between 2 and 6 months** at an **institution, research body, company or other type of host organisation based outside Italy**.

For traineeships during your studies, UniTrento guarantees the recognition of educational activities undertaken during the period abroad and agreed upon before departure in the Learning Agreement for Traineeship (TA), and certified by the host organisation at the end of the mobility period in the Traineeship Certificate.

### **Traineeship requirements**

In order to participate, you must read the selection call carefully and verify that you possess the necessary requirements, which will vary depending on your course of study and on whether it is an undergraduate or postgraduate traineeship. There are however:

- **requirements to be admitted to a traineeship:** the programme allows funding for traineeships with a commitment of at least 32 hours a week and which last for a minimum of 60 consecutive days, with a physical stay in the country of the host organisation;
- **academic requirements:** the compatibility of the traineeship with your course of study must be certified by the supervising tutor at UniTrento;
- **language requirements:** you must show that you have at least a B1 level (CEFR) of the language used at the host organisation, and this must be certified as instructed in the call;
- **student progress requirements:** when you apply to the programme you must already have earned a certain number of ECTS (academic credits) depending on your course of study and you must have a weighted grade average of at least 24/30 in Esse3.

### **Where can you go?**

You can do your traineeship at organisations around the world, except for San Marino and the Vatican City.

You must contact the organisation where you wish to do your traineeship independently and negotiate your traineeship with them as long as it respects the requirements of the programme.

All exchange programmes with Ukraine, the Russian Federation and Israel have been suspended for safety reasons.

If you apply for a traineeship in countries which are signed up to the Erasmus+ programme, or in the UK or Switzerland, you can do the traineeship at universities which hold the Erasmus Charter for Higher Education (ECHE), research institutes, public and private enterprises, NGOs. Institutions and UE bodies which are excluded, including the Agencies, are listed at the following European Union link. To have some idea of the destinations available, you can consult the map of traineeships completed in the past by students from each university campus: City, Povo-Mesiano and Rovereto, you can create a filter for your course of study.

If you wish to look for an opportunity among the offers made to UniTrento, you can search in the Drive folders below:

[List of traineeship offers from UniTrento partners - Europe](#)

[Lista of traineeship offers from other entities - Europe](#)

When choosing the organisation for your traineeship you should consider:

- the chance to benefit from priority access to institutions which belong to the ECIU network;
- the Digital Opportunity Traineeships initiative where the EU promotes traineeships in the digital field (e.g. app development, software, scripts, websites, data analysis, digital security, cloud computing, quantum and artificial intelligence, etc) listed here ErasmusIntern;

- offers of traineeships received from long-term partner institutions of UniTrento and other organisations or companies, and therefore subject to your evaluation. In both cases, you are invited to contact the organisation directly
- calls for applications from the MAECI-MUR-Italian University Internship Programme, which offer positions in embassies, permanent representations at international organizations, consulates, delegations and Italian Cultural Institutes-IICs;
- the JobGuidance service, they can help you finding other internship opportunities.

### How to participate

You can apply anytime. **The online application must be completed by the last day of each month.** By the 15th day of the following month, the International Mobility Office verifies the requirements and publishes the rankings.

Your internship must start at least 45 days after your application deadline has passed.

If you intend to undertake a **postgraduate traineeship** you must send your application **when you are still a 'student'**, which means at the latest, the day before your graduation.

If the internship takes place in countries participating in the Erasmus+ programme, in the United Kingdom, or in Switzerland, the mobility must end:

- for applications submitted before February: by 31 July 2025;
- for applications submitted after March: it can end later.

### You will have to attach to your application:

- a motivation letter signed by your UniTrento supervisor: **check their name in the "Minimum credits and UniTrento supervisor" file** that you find in the Useful document folder on this page;
- an acceptance letter from the host organisation abroad.

**A template of both letters is also available in the Useful documents folder**

### Scholarships

If you have been accepted you have the right to a scholarship:

- traineeship during studies: up to a maximum of 4 months;
- post-graduation traineeship: up to a maximum of 3 months.

If your destination is in one of the **Erasmus+ countries, or the UK or Switzerland**, the sum will be **between 400 and 500 euro a month (call 2024)**. You may also receive a supplementary sum of 250 euro a month if you come under one of the categories defined in the programme as 'students with fewer opportunities', where your income is taken into account primarily. Check whether you qualify for supplementary financial support as a 'student with fewer opportunities'. (See the [Inclusion page](#) for further information.)

If your destination is in one of the **other countries around the world**, the grant will be for **700 euro a month**. 100% of the scholarship will be paid within two months of the start of the mobility period. You may also receive a supplementary sum of 250 euro a month if your ISEE value is more or equal to 25,000.00 euro.

You will have to **repay the scholarship if you do not do the traineeship**, if you curtail the period abroad within the first two months of the mobility, or if the host organisation does not certify completion of the traineeship in the Traineeship Certificate.

We invite you to use sustainable means of transport to reach your destination to limit the impact of your exchange on the environment: if your exchange is in an Erasmus+ country, or the UK or Switzerland, you may have additional days recognised for your travel and a lump sum. All the information can be found on the [Green Travel](#) page.

## UniTrento - Thesis

A Master's thesis is a piece of scientific work that addresses a specific research question, builds on the existing academic literature and adopts the appropriate methodology. A Master's thesis must demonstrate sufficient knowledge of the relevant scientific and/or academic literature and the ability to critically engage with it.

The Master's thesis corresponds to 18 or 24 ECTS in some Departments.

### Choice of the thesis supervisor and the discussant

Students can contact the Department Professors and to ask for their availability to act as the main supervisor of their thesis. The supervisor can propose the appointment of an available co-supervisor if additional specific expertise is required. The name of a co-supervisor, if any, can be entered in ESSE3 during the registration for the final exam.

The Director of the SIS appoints the discussant for the final exam before the graduation session.

### Registration of the Thesis Title

As soon as students have agreed on a thesis topic with a supervisor, they are required to register the thesis title by filling out an online form. This should take place at least 4 months before the thesis is discussed. The title to be indicated in the form is not final and only serves to identify the broad topic of the thesis.

### Layout of the Master's thesis

Length: A Master's thesis worth 18 ECTS should amount to 25,000 words  $\pm 10\%$  (approximately 62 pages). A Master's thesis worth 24 ECTS should amount to 30,000 words  $\pm 10\%$  (approximately 75 pages). Note that the title page, abstract, table of contents, bibliography, tables and figures are excluded from the word count. The word count **MUST** be reported on the first page.

Language: The Master's thesis is written in English.

There is a Layout which describes the Page format, Title page, Binding, Structure, References.

**Plagiarism** is a serious offense and is not to be tolerated. Students are hereby informed that all Master's theses are subjects to anti-plagiarism checks using appropriate software. This also applies to text written by AI chat boxes such as ChatGPT.

### Thesis Submission

Information regarding graduation sessions, deadlines, and registration procedures for the final exam, as well as details about the composition of examination boards, can be found on the Department's webpages.

### Final Exam

The final exam consists of a presentation and discussion of the Master's thesis in front of a committee comprising five members, among which the supervisor and the discussant. The exam lasts approximately 30-35 minutes. Students are asked to summarize the main tenets of their thesis within a 10-12 minutes timeframe. A slideshow can be used for this purpose. In this case, the use of PDF files on a USB stick (rather than other file formats) is strongly recommended.

Following the presentation, the discussant asks some questions and the candidate is required to defend her/his thesis before the committee. Other members of the committee may also participate in the debate.

At the end of the examination, the committee decides the final mark on the basis of both the quality of the thesis and the performance of the student in the oral defence. The final mark is communicated to the student after the oral examination when the graduation is officially announced.

## THESIS ABROAD - Information for students

This programme allows you to spend a period of **at least 3 months** abroad **to undertake research** for your thesis or final exam.

### How to participate

When you apply for the programme you must fulfil the following requirements:

- be enrolled on a course of study at UniTrento and plan to start your period abroad before 31 July of the year after the normal duration of your degree course (i.e. of the first supplementary year);
- have at least a B1 level in the language used at the host organisation (this can be self-certified using the module online); NB: the B1 English test taken as part of the admission test for the bachelor's programme is not valid certification for this;
- have earned at least 144 ECTS (academic credits) if you are enrolled on a bachelor's degree, 240 ECTS if you are enrolled on a single-cycle master's course, 70 ECTS if you are enrolled in a master's programme, at least 60 ECTS if you are enrolled on the Physics master's programme.

You will also have to submit:

- your research project (an outline of the main arguments of your thesis and how you plan to develop the work abroad, in Italian and English);
- a letter of support from your thesis supervisor at UniTrento;
- a letter of acceptance from the host organisation abroad.

**The online application must be completed by the last day of each month at 12:00 PM (Italian time).**

At least 30 days must pass between the end of the month in which you submitted your application and your departure.

The results of the monthly applications are published by the 15th of the month following the application.

Thesis proposals abroad from other sources (G-Drive folder, access with your university credentials)

### Where can you go?

You can choose from destinations **all over the world**, except for San Marino and the Vatican City.

The mobility can be organised with various types of institutions including laboratories, research centres, companies and professional studios. The host organisation **is selected autonomously** in agreement with your thesis supervisor at UniTrento.

For security reasons, **mobility to Ukraine, Russia and Israel has been temporarily suspended.**

### Special cases

**The Double Degree programme;** the city where you are based for your thesis research or final exam must be different from that of the double degree, and mobility for thesis research may take place only once exams for the double degree programme have been completed, subject to agreement with your UniTrento supervisor and with the supervisor at the partner university.

If you are enrolled in the **Double Degree EIT Digital** programme **and UniTrento is your exit University** (i.e. in the 2nd year) **you may not apply for the programme.**

### Scholarships

The scholarship is intended as a contribution to travel and accommodation expenses while you are abroad and will be paid only when there is a physical transfer in a single payment within two months following your departure. The amount of the scholarships, listed below, are subject to taxation and vary according to the destination country and the results of your ISEE (income assessment).

*If you are a non-EU student who has been admitted to the University of Trento under the quotas reserved for non-EU residents abroad, you do not have to provide an income assessment (ISEE) but you will automatically receive the highest possible amount for the scholarship.*

The amount shown is the total contribution for a minimum period of mobility of at least 3 months. This sum remains unvaried, even for longer periods abroad.

***27 countries of the European Union and EFTA/EEA countries (Iceland, Liechtenstein, Norway and Switzerland) - Lump sum (3 months)***

- 900 euros with ISEE assessment of more than 25,000 euros;
- 1,650 euros with ISEE assessment of less than or equal to 25,000 euros.

***Outside Europe - Lump sum (3 months)***

- 2,100 euros with ISEE assessment of more than 25,000 euros;
- 2,850 euros with ISEE assessment of less than or equal to 25,000 euros.

If you have already carried out all or part of your research thesis abroad as part of the same course of study under another programme (for example, Erasmus), you may not obtain funding through this programme.

Moreover, funding through this programme may not overlap with other funding for the same destination and period.

**Timing**

The call is always open: you can submit your application at the end of each month.

**Mobility timeline**

A document with step-by-step instructions to follow before, during, and after the mobility is available for [download](#) (temporarily available only in Italian).

**CBL Internship and thesis**

At UniTrento there are opportunities for: CBL Internship and CBL Internship and thesis, we have to explore the opportunity for CBL thesis only.

## Deliverable report

### D4.2 - Report on design and implementation CBL internship and thesis



## Appendix 2

### Lodz University of Technology (TUL) - Thesis, Internship & and Financing opportunities

#### **Master Theses**

Conditions of writing diploma theses and taking the final examination at the Lodz University of Technology

At the outset, it should be mentioned that the conditions and legal conditions for writing diploma theses at each level and course of study are determined by the following documents: Resolution No. 20/2022 of the Senate of the Lodz University of Technology of 27 April 2022. The Rules and Regulations of the Lodz University of Technology and the Order No. 6/2025 of the Rector of Lodz University of Technology of 11 March 2025 on the Rules and Regulations for the award of diploma theses and the Anti-plagiarism Procedure for diploma theses at the Lodz University of Technology REGULAMIN OF DIPLOMACY AT THE LODZ UNIVERSITY OF TECHNOLOGY UNIVERSITY as well as Resolution No. 24/2025 of the Senate of the Lodz University of Technology of 26 February 2025 on the guidelines for the Boards of Studies concerning the creation and improvement of study programme projects, where the concept of a diploma project was introduced at that moment only for the first course cycle of studies.

As it results from the above documents, the deadlines for submitting a diploma thesis in a given academic year are agreed with the appropriate body of the Student Government. In turn, a diploma thesis is an independent development of a solution to a specific scientific or practical issue or an artistic achievement, presenting the student's knowledge and skills in accordance with the learning outcomes specified for a given field, level and profile of education and the ability to independently analyse and draw conclusions. At the Lodz University of Technology, it is allowed that a student's diploma thesis may be created based on a team project, provided that the student's participation in the implementation of the project is specified in detail. In addition, the diploma thesis may be carried out with the consent of the relevant Vice-Dean outside the Lodz University of Technology, including at another Polish or foreign university, as well as in a Polish or foreign research centre and, at the request of the student, it may be submitted in a language other than the language of instruction - the language of studies. The diploma thesis is subject to independent opinion and assessment by the thesis supervisor and the reviewer. The diploma thesis stage ends with a diploma exam, therefore the Student, within 21 days of meeting the condition of obtaining all credits and the number of ECTS points resulting from the study program, including

submitting the diploma thesis, is obliged to settle all liabilities to the University and submit to the Vice-Dean an application for admission to the diploma exam. The diploma exam is conducted no later than 6 weeks from the date of submission by the student of the application for admission to the diploma exam.

What is important is that the topic and scope of the diploma thesis should be consistent with the learning outcomes specified for a given field, level and profile of education and accepted by the relevant Board of the Field of Study and approved by the Vice-Dean for Education. In addition, the topic of the diploma thesis should be determined before the student starts the last semester specified in the study program (referred to as the diploma semester). However, in the case of performing the diploma thesis outside the Lodz University of Technology, the topic of the diploma thesis may also be determined after the start of the last semester of the study program.

It is important in the process of writing a diploma thesis that, upon a written request of the student or thesis supervisor, the Vice-Dean for Education may agree to change the topic, scope or supervisor of the thesis.

From the point of view of the subject of the project, in the case of diploma theses performed on the basis of a double diploma agreement, the diploma thesis is carried out under the supervision of two supervisors (one from Lodz University of Technology and one from a partner university), appointed according to the principles in force at a given university. The supervisor from Lodz University of Technology verifies the compliance of the thesis with the substantive and formal-editorial requirements.

In addition, each student undergoing the diploma process has access to the necessary substantive support at each stage in the form of a diploma thesis supervisor, materials indicating editing standards located on the websites of the Faculties of Lodz University of Technology and in appropriate classes conducted during the academic year directly related to the issue of writing diploma theses.

A novelty at the level of a higher education institution is the stage preceding the student's admission to take the diploma exam. This is the Competency Exam, which is organized during the last semester of studies. The student has the right to take the competency exam at least twice during this semester. The condition for taking the competency exam is obtaining credits for all subjects specified in the study program and completed in the semesters preceding the last semester of studies, confirmed by an entry in the computer system, excluding compulsory professional internships and subjects for which credit is made with the entry "zal" – “passed”.

## **Internships**

Student internships are mandatory at the University for students following a practical profile, and for those studying a general academic profile, only in first-cycle studies.

For degree programmes with a practical profile, the internship durations are:

- 1) for first-cycle programmes, 6 months, equivalent to 24 ECTS credits;
- 2) for second-cycle programmes, 3 months, which corresponds to 12 ECTS credits.

For degree programmes with a general academic profile, student internships must be:

- 1) at least 6 weeks for first-cycle programmes, allocated a minimum of 6 ECTS credits;
- 2) at least 4 weeks for second-cycle student work placements, allocated a minimum of 4 ECTS credits.

## **Funding opportunities**

Erasmus+

Within the framework of the Erasmus+ program, it is possible to carry out short and long-term trips as part of internships or studies.

ERASMUS+ Higher education under the "Mobility of Students and Staff in Programme Countries" component offers:

- mobility of students to and from partner universities abroad to pursue part of their studies there;
- mobility of students and graduates to complete internships in institutions, companies and organizations in programme and partner countries;

Each candidate has a capital of 360 days of physical mobility that can be dedicated to Erasmus+ mobility for studies/traineeship at each cycle of studies. This means that within a single cycle of study, the total length of a student's stay at studies and/or traineeship abroad cannot exceed a total of 360 days.

This total includes any previous mobility, i.e. the number of days of study abroad (studies and/or internship) under the Erasmus+ programme at the given cycle of study.

Each TUL student is entitled to the following:

- a maximum of 360 days of work placement abroad at each cycle of studies;
- graduate internships (recruitment necessary while being a student);
- multiple mobility trips at the same cycle of studies;
- Erasmus + scholarship for mobility period and support for travel;
- additional scholarship for people receiving a social scholarship and people with disabilities.

## **Study stay**

The study stay abroad may not be shorter than 60 days in the case of long-term mobility and may not be longer than 360 days. The student is eligible for an Erasmus+ grant covering two days of travel and the entire duration of their stay abroad, provided it does not exceed the mobility capital and the allocated travel lump sum. The rates of scholarships and travel grants for Erasmus+ study visits depend on the country of departure, the duration of mobility and the applicant's financial and health situation. Qualification process for Erasmus+ mobility is conducted over several calls, following the current schedule.

## **Internship – long-term mobilities (from 60 days)**

An Erasmus+ internship must guarantee obtaining learning outcomes related to the studied field of study or programme. The traineeship requires full-time work. The required number of working hours must be agreed with the host institution and confirmed in the Learning Agreement for Traineeship.

Recruitment for long-term internships at companies or universities abroad takes place every 1–2 months. The student receives a scholarship from the Erasmus+ program for the period of internship mobility (max. 180 days). The monthly grant ranges from €700 to €820, depending on the host country. Additionally, students receive a travel allowance based on a distance calculator, along with a minimum of two days of travel cost support. In the case of Green Travel, the grant is increased accordingly. Students receiving a social scholarship or holding a disability certificate are entitled to an additional €250 per month as an equalization supplement.

The host organization may be any public or private organization active in the market or in the field of education, training and acting for the benefit of the youth.

Examples of host organizations for internships are as follows:

- a public or private small, medium or large enterprise (including a social enterprise);
  - a public authority at local, regional or national level;
  - social partner or other representative of the profession concerned, including chambers of commerce;
- craft/professional associations and trade unions;
- research institute;
  - foundation;
  - school/institute/educational center;
  - non-commercial organisation, association, NGO;
  - a body offering career guidance, counselling and information services;

- a higher education institution of a participating country holding an Erasmus Charter for Higher Education.

## **Short-term mobility**

A student may take advantage of a short-term mobility abroad for studies or internship if:

- mobility abroad lasts from 5 to 30 days
- mobility includes obligatorily virtual component, before or after the mobility period (not obligatory for doctoral candidates)
- student/doctoral candidate obtains min. 3 ECTS for the achieved learning outcomes (this requirement does not apply to internships).

Recruitment takes place continuously as long as the funds are still available.

Short-term mobilities are, for example: an organized activity of the BIP (Blended Intensive Program - a type of intensive courses, training), summer/winter school or other short scientific mobility etc.

The amount of scholarship and travel co-financing rates (if applicable) under the short-term mobility of the Erasmus+ programme depends on the length of stay, material and health situation of the candidate. The amount is a contribution to travel and daily living costs. The details of the grant depend on many different conditions, including the differences in living costs between the home and destination country and distance between countries.

## **IAESTE**

Students of Lodz University of Technology may benefit from paid internship opportunities in one of 80 countries that include Sweden and France offered under the IAESTE program. The IAESTE Association is a confederation of National Committees representing academic, industrial and student interests.

It provides three different internship programmes: Exchange Internship, Global Internship and Reserved Internship.

The internships can last from 6 weeks to 12 months. Apprentices receive a salary covering the costs of accommodation, meals, cultural program.

The registration procedure for students starts in November and lasts until February.

## Deliverable report

### D4.2 - Report on design and implementation CBL internship and thesis



## Appendix 3

### Internships, thesis and funding opportunities at INSA Toulouse

#### Internships

At INSA Toulouse, internships are an integral part of the engineering education pathway. These professional experiences aim to develop students' technical, operational, and interpersonal skills by immersing them in real-world contexts. Though not formally labeled as Challenge-Based Learning (CBL), they share many of its core principles—such as working on authentic, complex problems with tangible impact.

#### Internship Framework

**1st Year – Worker Internship** (4 weeks): Students become familiar with industrial environments and work culture. This internship is primarily observational and manual.

**4th Year – Assistant Engineer Internship** (12 to 16 weeks, 9 ECTS): Conducted between June and September (Semester 8 to 9), this internship allows students to take on technical responsibilities and contribute to engineering tasks within a host organization.

Minimum duration: 12 weeks

Location: France or abroad

Mandatory remuneration if over 2 months (at least 1/3 of the French SMIC – minimum wage)

Evaluation: Based on a written report or poster (1/3 of the grade) and a company tutor's evaluation (2/3)

Credit transfer: 9 ECTS in Semester 10

Poster or report presentations occur in Oct/Nov for the incoming 4th-year cohort.

**5th Year – Final-Year Project (PFE) / Engineer Internship** (20 to 24 weeks, 21 ECTS)

Conducted from February to June–September (Semester 10)

Minimum duration: 5 months

Location: France or abroad (companies or research labs)

Mandatory remuneration (same legal requirement)

Deliverables: A report in the working language of the host institution and an oral defense before an academic jury and company tutor.

All internships are **individual missions**, defined and assigned by the host organization, and are subject to a formal validation process. Students apply directly to companies through open offers or unsolicited applications. INSA ensures legal compliance by issuing a tripartite internship agreement signed by the student, the company, and the academic supervisor.

## Research project and Thesis

At INSA Toulouse, all students enrolled in the 4th year of the informatic and electronic engineering tracks participate in a PIR – Innovation and Research Project, which shares similarities with what the JUMP project defines as a CBL thesis.

This project-based learning module aims to introduce students to scientific research and innovation practices, as well as to provide them with methodological foundations through the following components:

- State-of-the-art review (written in English)
- Design and implementation of a prototype or demonstrator
- Teamwork in project mode, supervised by a research or academic advisor
- Final deliverables: scientific article and oral defense (in English)
- Assessment: based on project results, documentation quality, teamwork, and presentation skills

Students work in teams of 6–7 peers from the same academic track. The project spans the entire academic year, with the literature review conducted in the first semester and the main development and implementation phase taking place in the second semester.

Each team is supported by an academic tutor (*enseignant-chercheur* or researcher from INSA Toulouse), who ensures regular progress follow-up and evaluates the work. In some cases, especially for innovation-oriented topics, an industrial co-supervisor, when the project is carried out in collaboration with a company or external stakeholder.

For the IS track (Computer Systems), the PIR topic is also used as the research project in the 5th year, providing a strong continuity in research orientation.

The PIR integrates multiple skills:

- Research and critical thinking
- Written and oral communication in English
- Collaborative project management
- Technical design and innovation

This module represents a strong opportunity for students to develop early research competencies and is well aligned with the objectives of CBL theses in the JUMP framework, especially when topics are co-designed with external stakeholders or innovation-oriented.

## Credit allocation summary

At INSA Toulouse the total sum of the internship credits is 30 ECTS

- The 4th-year internship is worth 9 ECTS,
- The 5th-year (final) internship is worth 21 ECTS.

There is no separate credit allocation for the thesis or final report – the credits cover the full internship experience, including the written report and oral defence.

In addition, students also complete a 4th-year research project PIR (projet d'initiation à la recherche), which is worth 4 ECTS.

## Funding opportunities for internships

To support international mobility, several funding schemes are available at national and regional levels.

### 1. Erasmus+ Internship Grant

This is the main funding scheme for students doing an internship in an Erasmus+ programme country.

#### **Eligibility:**

Full-time students enrolled in a higher education institution (e.g. 4th or 5th year at INSA) carrying out an internship abroad that is recognized within the curriculum.

Host countries: All Erasmus+ programme countries (EU + partner countries).

Duration: 2 to 12 months.

Amount: Monthly grant between €400 and €600, depending on the cost of living in the destination country.

Top-up: Additional support may be granted to students with fewer opportunities (social or disability criteria).

Application: Through the International Relations Office (DRI) at INSA Toulouse.

Erasmus+ internship grants cannot be combined with the AMI grant (see below) for the same mobility.

## 2. French Government Aid – AMI Grant (Aide à la Mobilité Internationale)

This national grant is for students who are recipients of a French means-tested grant (CROUS) and are undertaking an internship or academic stay abroad.

### **Eligibility:**

Must receive a CROUS grant based on social criteria

Internship or study abroad must be part of the curriculum and last 2 to 9 consecutive months

Amount: Fixed amount of €400 per month

Application: Through INSA's International Relations Office (DRI), which forwards applications to the Rectorat.

## 3. Regional Grant – Aide Mouv'Occitanie

The Occitanie Region provides additional funding to support international mobility through the Aide Mouv'Occitanie programme.

### **Eligibility:**

Students enrolled in a higher education institution located in the Occitanie region

Internship abroad must last at least 4 weeks (28 days) and be part of the student's curriculum.

Priority given to students with limited financial resources.

Amount:

Base grant: €100 per week (up to €1,200)

Social top-up: €400 for CROUS grantees (conditions apply)

Green mobility bonus: €200 if travel is done by train, bus, or carpooling

Application: Online via the Mes Aides en Occitanie platform: [mes-services.laregion.fr](https://mes-services.laregion.fr)

This grant is compatible with Erasmus+ funding.

## 4. Other Support Options

INSA Foundation or departmental funds: Occasionally available depending on the field or project

Host organizations: Internships lasting over 2 months (in France or abroad) must be paid, as required by French law (at least 1/3 of the SMIC)

Other scholarships: Depending on agreements or specific academic or research programmes.

Deliverable report  
D4.2 - Report on design and implementation CBL  
internship and thesis



Appendix 4  
Linköping University (LiU) Internship & Thesis  
opportunities

## 1. Introduction to the LiU options

At the LiU engineering programs, one electable internship course is available (see 2. below), where engineering students from all programs can have the opportunity to gain practical experience.

Master Thesis (see 3 below) can be conducted at external firms and organisations - but does not have to.

Engineering and science students at Linköping University (LiU) have the opportunity to gain valuable hands-on experience through two internship options: the **Industrial Placement** and the **Master's Thesis (Degree Project)**. Both are designed to help students apply their academic knowledge in real-world settings and strengthen their understanding of professional practice.

Although they differ in format, scope, and level of independence, each offers a way to explore working life, develop relevant skills, and contribute meaningfully to a host organisation. This report provides an overview of these two internship alternatives, focusing on how they are structured, what they require from the student, and what kind of learning outcomes they support. The aim is to offer a clear basis for choosing the option that best aligns with one's interests, ambitions, and situation.

## 2. Example of an Internship course at LiU - open for the majority of all engineering programs at LiU

### **Industrial Placement (6 ECTS)**

Course Level: First Cycle

Advancement Level: G2F

Course Type: Programme Course

Main Field of Study: No main field of study

Grading Scale: Fail (U) / Pass (G)

Scheduled Hours: 0 h (on-campus)

Recommended Self-Study Hours: 160 h

Course Code: UPG1

Department Responsible: Tekniska fakultetens kansli (Faculty of Science and Engineering)

Examiner: Appointed by the programme board (nämndspecifikt)

### **Summary**

*The Industrial Placement course at Linköping University provides students in engineering and science programmes with a structured opportunity to gain real-world, full-time experience in a relevant workplace for at least three consecutive weeks. The course bridges academic studies with professional practice, emphasizing collaboration, responsibility, and technical problem-solving. Students are expected to find and plan their own placement, engage actively in a supervised work environment, and reflect on their experience in a detailed final report. The placement must involve technical or scientific tasks and offer integration into a professional team. Assessment is based on the student's written report and a supervisor's confirmation of participation. No lectures are scheduled; the course is entirely workplace-based and self-directed. It aims to prepare students for future careers by strengthening their professional insight, workplace adaptability, and ability to apply theoretical knowledge in practical contexts. The course is graded as Pass (G) or Fail (U).*

### **Course Overview**

The course Industrial Placement offers students a unique opportunity to bridge academic knowledge with practical, real-world experience in a relevant workplace. Conducted outside the university environment, the course emphasizes professional integration, technical application, and personal development through full-time participation in an industry setting. This course plays a crucial role in preparing students for life after graduation by deepening their understanding of professional roles, collaborative work, and technical practice in real-world settings.

### **Course Aims**

The overarching goal of the industrial placement is to provide students with meaningful exposure to the working environment of a company or organization aligned with their area of academic study. Students are expected to engage in technical or scientific activities within the organization and work collaboratively in a team environment.

Through this placement, students will:

- Gain practical, hands-on experience with production processes, service development, or technological systems.
- Learn to function effectively as a member of a professional team.
- Experience the expectations, responsibilities, and standards of a professional workplace.
- Reflect on their role and identity as emerging professionals.
- Improve their ability to take personal initiative and accountability.
- Deepen their awareness of workplace diversity, ethics, and communication.

### **Intended Learning Outcomes**

Upon completing the course, students will be able to:

- Understand workplace demands: Describe the expectations and requirements of professional life, including behavioral, technical, and social dimensions.
- Manage technical/scientific inquiries: Demonstrate an ability to locate, assess, and apply relevant information in solving real-world problems.

- Reflect on professional roles: Articulate the varied responsibilities and challenges faced by professionals in the field, including non-technical aspects such as teamwork, ethics, and decision-making.
- Communicate effectively: Present the outcomes of their industrial experience in a structured and professional report.
- Apply academic knowledge in practice: Integrate theoretical knowledge with practical tasks encountered during the placement.

### **Target Audience**

This course is intended for students enrolled in a wide range of science and engineering programmes at Linköping University. Eligible programmes include (but are not limited to):

### **Entry Requirements**

To be eligible for the course, students must have completed at least 80 ECTS credits from mandatory courses in semesters 1–4 of an approved programme within the Faculty of Science and Engineering. Eligibility is verified by a student counsellor prior to enrollment.

### **Course Content**

The student is responsible for securing a placement in a company, institution, or organization that provides a relevant and structured learning opportunity in a field related to their academic focus. The placement must:

- Be of a technical or scientific nature.
- Last at least 3 consecutive full-time weeks.
- Offer opportunities for collaboration and supervision (placements where the student works in isolation are not permitted).
- Be formalized in a placement plan, signed by the student and the workplace supervisor, and approved by the course examiner.

Tasks during the placement may vary depending on the organization but should contribute to the student's technical and professional development. Typical examples include participating in development projects, system testing, product design, service implementation, laboratory work, or data analysis.

### **Teaching and Working Methods**

There are no scheduled on-campus lectures or seminars in this course. Instead, the entire learning experience is practice-based and situated within the chosen workplace. The course is conducted as an independent placement project with the following structure:

*Placement Planning:* Students find and propose a placement opportunity. They must submit a placement plan for approval, outlining tasks, learning goals, and expected outcomes.

*Supervised Placement:* Students work full-time under the guidance of an on-site supervisor. The supervisor ensures active participation and provides feedback during and at the end of the placement.

*Documentation and Reflection:* After the placement, students submit a detailed placement report describing their work, learning experiences, and reflections on their professional development.

*Supervisor Report:* The workplace supervisor completes an assessment report, confirming the student's presence and engagement, based on a standardized template provided by the

university. Students are expected to approach the placement professionally and responsibly, treating it as both a learning opportunity and a contribution to the workplace.

### **Assessment and Examination**

The course is assessed through:

UPG1 – Assignment (6 ECTS credits): The student's placement report is evaluated on clarity, depth, technical/scientific relevance, and critical reflection. The report should include:

- Background and context of the placement project.
- Description of tasks and methodologies used.
- Insights into the student's role and collaboration within the team.
- Discussion of challenges, solutions, and lessons learned.
- Summary and properly cited references.

The final grade is determined as Pass (G) or Fail (U), based on the quality of the placement report and confirmation from the supervisor. The grading criteria are presented at the start of the course.

### **Practical Information**

Language of Instruction: The course is offered in English or Swedish depending on the student cohort. Examination language aligns with the language of instruction.

Course Materials: No mandatory literature. Templates for the placement plan and supervisor's report are provided in the course documentation.

Equal Opportunities: The course is conducted in accordance with LiU's principles for equal treatment, regardless of gender, ethnicity, disability, sexual orientation, or age.

#### **Additional Guidelines**

The course must comply with the current course syllabus and follow university-wide rules regarding examinations, documentation, and academic integrity.

Plagiarism, including self-plagiarism, is treated as academic misconduct and is subject to university disciplinary actions.

Students must report interruptions or deregistration through the appropriate online system.

Industrial placements must allow students to be part of an active working environment. Work-from-home or remote-only placements are not suitable unless explicitly approved.

### **Course Value**

By participating in Industrial Placement, students transition from being learners to emerging professionals. This experience enhances employability, deepens practical knowledge, and allows students to better understand their future roles in science, engineering, or technology sectors. The course supports personal growth, career exploration, and real-world learning in a structured yet flexible format.

### **3. LiU engineering master thesis “Degree project - Master’s Thesis, 30 credits”**

#### **Summary:**

*The Degree Project – Master’s Thesis (30 credits) is the final and most comprehensive course in LiU’s engineering master’s programmes. It allows students to independently apply and deepen their academic knowledge through a substantial research or development project, carried out either at LiU or externally (e.g., in industry or abroad). Entry requires at least 240 completed ECTS credits, including all mandatory courses from semesters 1–6 and 30 advanced-level credits in the main field of study.*

*Students are expected to plan, conduct, and report their project professionally, demonstrating analytical thinking, technical skill, and awareness of societal and ethical dimensions. Supervision and assessment involve a planning report, a mid-way assessment, a final thesis, oral presentation, written reflection, and acting as an opponent. The entire process is graded as Pass or Fail. Projects must be clearly documented, ethically conducted, and presented publicly, unless exemptions apply. Attendance at three thesis presentations is mandatory.*

#### **Entry requirements**

To be qualified to conduct a degree project the student must have completed at least 240 ECTS credits within the programme. In addition, all mandatory courses from semester 1 to and including semester 6 must be completed as well as 30 ECTS credits at the advanced (graduate) level within the main field of study must be completed. Furthermore, there is a requirement to have enough knowledge for the specific thesis work.

#### **Intended learning outcomes**

Knowledge of subject area;

The student is expected to demonstrate ability to:

- systematically integrate the knowledge acquired during his/her studies
- demonstrate substantially deepened knowledge of methodology as well as knowledge of the subject area within the main field of study
- assimilate the content of relevant scientific literature and relate the work to this
- Personal and professional skills

The student is expected to demonstrate ability to:

- plan, implement and present an independent degree project
- formulate issues, plan and carry out advanced tasks within specified time limits
- find and evaluate scientific literature
- present an independent degree project in writing and orally in a professional manner
- critically examine and oppose another student’s degree project that is presented in writing and orally
- create, analyse and/or evaluate technical solutions in the form of systems, theories or methods
- make assessments with regard to applicable ethical and societal conditions such as economically, socially and ecologically sustainable development

## **Course content**

Determined individually for each student in consultation with the examiner and the supervisor. The project must be carried out within the main field of study.

## **Teaching and working methods**

The course consists of an independent degree project. A supervisor and an examiner are appointed for each student or group of students. The degree project is the final step before graduation.

## **Examination**

- AUSK Attendance at three thesis presentations, 0.5 credits (participation)
- OPPO Opposition 1.5 credits (pass/fail)
- UPG1 Planning report, midterm assessment, written report, oral presentation and reflection document 28 credits (pass /fail)

Only degree projects at a level and extent equal to that of your personal degree project can be selected for opposition. The student must oppose at least one degree project.

Attendance at thesis presentations may be done starting the seventh semester of the programme Master of Science in Engineering, and is recorded until registration of the master's thesis can be done in the course code TEXCIV. Thesis presentation attendance can be done at degree projects at a level equal to or higher than your personal degree project.

The written report must be ready for publication including an individual document of reflections made on the completed project process.

The entire course is graded Pass/Fail.

## **Grades**

Two grade scale, older version, P, F

## **Other information**

The following course codes, depending on main field of study, are based on this syllabus:

## **About teaching and examination language**

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is "Swedish", the course as a whole could be given in Swedish, or partly in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is "English", the course as a whole is taught in English. Examination language is English.
- If teaching language is "Swedish/English", the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.

## **Other specifications**

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

The planning and implementation of a course should correspond to the course syllabus. The course evaluation should therefore be conducted with the course syllabus as a starting point.

The course is campus-based at the location specified for the course, unless otherwise stated under “Teaching and working methods”. Please note, in a campus-based course occasional remote sessions could be included.

### **Common rules**

Degree project for Master’s Degree in Engineering 300 credits, Master of Science (Two years), Master of Philosophy (Two years), Master of Science (One year), and master’s degrees without prefix

General provisions for the degree project are given here. A specific faculty programme board may have supplementary regulations that are specific for a study programme. These are specified, where relevant, in the syllabus for the field of education and/or the degree project. Information about application, reflection documents, possible examiners etc. can be found at Information.

### **General provisions**

To be awarded a Master’s Degree in Engineering 300 credits, Master of Science (Two years), Master of Philosophy (Two years), Master of Science (One year), or master’s degree without prefix a student must carry out an approved degree project. The components of the degree project are described in the relevant course syllabus.

### **Aim**

The aim of the degree project is described in the relevant course syllabus, <https://liu.se/studieinfo/en>.

### **Extent**

Requirements for the extent of the degree project for each type of degree are given in the syllabus of the study programme.

### **Locations for a degree project**

The work is carried out in the form of:

- an internal degree project located at one of the participating departments at LiU
- an external degree project located at a company, government agency, or other organisation in Sweden or abroad, that an examiner has assessed is able to manage a degree project that satisfies the requirements, or
- a degree project within an exchange agreement in association with study abroad, whereby all study results are to be credited to the student by the relevant faculty programme board.

The main subject areas that are permitted within each study programme are described in the programme syllabus. Any individual subjects that may be relevant to the main subject area are to be determined by the relevant faculty programme board.

The examiner for a degree project within a certain subject area are determined by the faculty programme board that is responsible for general degrees within the main subject area. An up-to-date list is given at Information.

Degree projects within agreements relating to study abroad

During study abroad that takes place within the framework of an agreement, the provisions of the host institute relating to degree projects are applied. The student is to consult the faculty programme board and together ensure that the proposed degree project is carried out in a main subject area that is permitted within the study programme. Approved main subject areas for degree projects are specified in the syllabus for the relevant programme.

A certificate confirming that the degree project has been approved and a copy of the degree project thesis (in PDF format) are to be submitted to the relevant faculty programme board.

### **Selection of degree project**

A degree project is to be selected in consultation with an examiner, who is also responsible that the specialisation, extent and level of the project satisfy the requirements specified in the course syllabus.

In cases in which issues relating to work-related copyright, patenting or remuneration may arise, provisions governing these should be established in advance. A student working on a degree project may sign a confidentiality agreement in order to obtain access to confidential information necessary for the degree project. The supervisor and examiner, however, determine whether they are prepared to sign a confidentiality agreement, and thus the confidential information must not normally be of such nature that it is necessary to supervise or grade the work. The complete degree project thesis is to be published during the grading procedure, unless exceptional circumstances prevent this. If any part of the thesis should not be published, this must be approved in advance by the examiner and the relevant head of department. Note that final decisions relating to confidentiality are taken by an administrative court.

### **Commencement of a degree project**

Requirements that must be satisfied before a degree project can be started are given in the currently valid course syllabus, which can be obtained in the relevant programme syllabus at <https://liu.se/studieinfo/en>.

Notification of a degree project is to be carried out when the degree project starts, at Application. Registration of the degree project is to take place before work commences.

Before the start of the degree project, the examiner is to ensure that the student satisfies the conditions for commencement of the degree project within the relevant main subject area. Support in this can be obtained from the Study Administration Office, who checks the general requirements for starting the degree project.

The student is also to notify the relevant department of the start of the degree project.

### **Degree projects in collaboration with another student**

In cases in which two students carry out a degree project together, the contribution of each student is to be specified. The extent of the work is to correspond to the extent of two individual projects. The examiner is to ensure that each student has contributed in a satisfactory manner to the work, and that each student satisfies the requirements for achieving a Pass grade for the degree project.

Degree projects carried out in collaboration between more than two students are not permitted.

## **Examiners**

The examiner must be employed as a teacher at LiU according to the LiU Regulations for Appointments Dnr LiU-2022-04445

(<https://styrdokument.liu.se/Regelsamling/VisaBeslut/622784>).

The following teachers can be appointed as examiner: Professor (including Adjunct and Visiting Professor), Associate Professor (including Adjunct), Senior Lecturer (including Adjunct and Visiting Senior Lecturer), Research Fellow, or Postdoc. The examiner must also have the expertise required to examine degree projects (for example through research, supervision or teaching) within the relevant main subject area, and be appointed by the faculty programme board. The faculty programme board can also appoint emerita/emeritus as examiner for a single thesis work.

### ***The examiner is to:***

ensure before the start of the degree project that the student satisfies the conditions for commencement of the degree project within the relevant main subject area. The Study Administration Office is to check whether the commencement criteria are satisfied and inform the examiner of this

- check whether special admission requirements (where relevant) are satisfied, for example that the student can demonstrate a certain degree of in-depth knowledge within the field relevant for the degree project
- determine the specialisation and principal work of the degree project, based on an assessment of whether the degree project will result in the learning outcomes of the course syllabus being satisfied
- in conjunction with the planning report, check that the student has registered for the degree project and that the student has a supervisor
- pass/fail the planning report
- pass/fail the mid-way assessment
- be responsible that the supervisor or supervisors carry out their duties
- approve the work for presentation
- before the presentation, check that the proposed opponent satisfies the conditions for commencement of the degree project and has attended three thesis presentations
- pass/fail the presentation and the opposition to it
- approve a concluding reflection document
- ensure that a degree project that has been passed satisfies the learning outcomes of the course syllabus and other requirements, and award a grade to the degree project (either G = Pass, or U = Fail).

In cases in which a degree project is carried out jointly by two students with different main subject areas, one examiner in each main subject area must be appointed, where this is necessary.

## **Supervisors**

A student working on a degree project is to have access to an internal supervisor at the department at which the degree project has been registered. The internal supervisor is to have a degree that corresponds at least to the level of the degree project to be supervised. The internal supervisor may, in exceptional circumstances, be the same individual as the examiner. A decision of whether to allow this in a particular case is to be made by the relevant faculty programme board before the degree project is started.

The supervisor is to ensure that the student obtains help with:

- expert support in general questions related to methods, specialist knowledge of the subject, and writing the thesis
- problem formulation, and setting the limits of the work
- scheduling and planning work, and selection of appropriate methods.

If the degree project is being carried out outside of LiTH, an external supervisor from the commissioner is to be appointed.

### **Planning report**

During the first weeks of the degree project, the student is to draw up a planning report that contains:

- a preliminary title of the degree project
- a preliminary statement of the research question, against the background of a literature search
- a preliminary description of the approach to be taken
- planned literature foundation
- a schedule for the execution of the degree project, including suggested dates for the mid-way assessment and presentation.

Formulation of the research question is to be bounded, realistic and viewed from a perspective of societal or commercial benefit. The term “societal” is to be understood here to include universities and university colleges.

### **Mid-way assessment**

Approximately half-way through the degree project, the student is to describe to the examiner at a mid-way assessment how the work is progressing relative to the planning report. The supervisor should also participate. The form of the mid-way assessment may be anything from an oral presentation to a public seminar. The conclusion of the mid-way assessment may be one of three possibilities:

- The work has been carried out essentially as planned, and can continue as planned. The mid-way assessment has been passed.
- The work has been carried out with certain deviations from the planning report. It is, however, believed that it will be possible to complete the work with minor adjustments to the formulation of the research question, approach and/or schedule. The mid-way assessment has been passed.
- The work has deviated from the planning report in a significant manner, and there is a risk that a Pass grade cannot be given. The mid-way assessment has been failed. A new planning report must be drawn up and a new mid-way assessment carried out.

### **Reporting**

Both oral and written reports of the degree project are to be made, in Swedish or English. For the international Master's programmes, both the oral and written examination should be made in English. The faculty programme board can allow the reporting to be carried out in another language than Swedish or English.

The oral presentation is to take place in public, unless there are exceptional circumstances that this should not be done. The written report is to be in the form of a professionally produced degree project thesis. The presentation and thesis are to follow the instructions given below.

### **Presentation**

The oral presentation is to take place when the examiner considers that the work has been completed and is ready to be presented. The presentation is to take place on site at LiU at a time when other students can attend. This means that the presentation can take place on a date that the student has agreed with the examiner, normally between the re-examination period in August and midsummer, and after the student has attended three thesis presentations.

The oral presentation is to describe the background to the problem that has been studied, describe the methods used, and present the results and conclusions. The presentation is to be at a level suitable for everyone present, not just for specialists. After the oral presentation, the student is to counter any criticism that the opponent may raise, and allow other participants to pose questions. The presentation and the opposition are to be approved by the examiner. When any required adjustments of the thesis have been made, the reflection document has been approved, and the student has functioned as an opponent for another degree project, the degree project is reported as a passed course and the credits can be used to satisfy the requirements for a qualification.

### **Degree project thesis**

The written degree project report is to be professionally written and comprehensive, and it is to demonstrate a scientific approach. The report must be prepared in accordance with principles for acceptable practice when referring to sources (references or quotations for which the source is specified) when the text, images, ideas, data, etc., of other people are used. It is also to be made clear whether the author has reused his or her own text, images, ideas, data, etc. from previous examinations, such as undergraduate work, project reports, etc. (This is sometimes known as “self-plagiarism”.) A failure to specify such sources may be regarded as attempted deception during examination.

The contents are to be easy to understand, and the way in which material is presented is important. It must describe the background to the project and the formulation of the research question. The choice of approach is to be clearly explained, and the thesis should make clear the coupling between the results and the conclusions. Commonly accepted scientific methods are to be used for processing the results. The discussion is to be comprehensive, and demonstrate that the student masters analytical thought processes. The thesis is to demonstrate good mastery of the literature in the field, and include an abstract. Theses that are principally written in Swedish should contain a summary in English. A publication-ready manuscript and a reflection document covering the work undertaken are to be submitted to the examiner within 10 days after the oral presentation. The examiner may grant an exemption from this requirement. If final versions of the required documents are not submitted as stipulated, the examiner may determine that the presentation is to be rescheduled.

The Faculty of Science and Engineering (Institute of Technology) at Linköping University recommends that degree project theses be published.

## **Opposition**

An oral opposition is to be carried out in connection with the student's own presentation of his or her thesis, i.e. at the end of the own studies, and is to take place on site at LiU. The opposition is made on other degree projects at the same level and of the same extent as the own degree project. The opponent must also have attended three thesis presentations as a member of the audience. In a normal case, the number of opponents will be the same as the number of respondents. In exceptional cases, the examiner may decide that this is not to be the case. Acting as an opponent during the thesis presentation of another student is subject to points-based assessment as described in the course syllabus.

### ***The opponent is to:***

- discuss and comment on the selection of methods, results and (where relevant) data processing, conclusions, possible alternative solutions and conclusions, and the management of literature
- comment on the general arrangement of the degree project thesis and related, formal aspects of style, and comment on the oral presentation technique
- illuminate the strengths and weaknesses of the thesis.

The duration of the opposition should be approximately the same as that of the presentation, and it is to include a discussion in which the student presenting the thesis replies to and comments on the criticism raised by the opponent.

Unless otherwise agreed, at least one week before the presentation the opponent is to present in writing to the examiner the important issues that will be discussed, and the structure of the opposition that will be taken. The opponent and the examiner discuss the structure that the opponent has drawn up.

## **Attendance at presentations**

A student is to attend presentations of degree project theses as described in the course syllabus. The presentations attended must be at the same level or a higher level than the degree project of the student.

It is advantageous that one of the presentations attended is a licenciate degree seminar or a doctoral disputation. The student is responsible for ensuring that a certification of attendance at the presentation is obtained and passed to the departmental administrator for registration in Ladok. Attendance at such presentations is a component of the degree work that is subject to points-based assessment.

The occasions on which a student attends presentations are to be completed before the student presents the degree project thesis. The course syllabus for the degree project describes the scheduling of the attendance at presentations.

The attendance at presentations is to take place on site at LiU. It is not possible to participate remotely.

## **Reflection document**

A document reflecting on the work that has been carried out is to be submitted to the examiner within 10 working days of the oral presentation. Instructions for preparing a reflection document can be reached through Reflection document.

## **Grades**

The degree project is graded as either Pass or Fail. In order for a student to obtain a pass grade for the degree project, all components must be completed and be awarded a pass grade.

## **Right to obtain supervision**

It is expected that the student complete and pass a degree project within specified time limits. After the student has registered the degree project in Ladok, the department is required to provide supervision for a maximum of:

- 18 month for degree projects of 30 credits.
- 21 month for degree projects of 45 credits.
- 24 month for degree projects of 60 credits.

The examiner may grant additional supervision after this period in special cases. If the examiner determines that supervision is to be ended, the degree project is to be awarded a Fail grade. The examiner does not have to fail the degree project if it is considered possible that the student can finish the thesis without further supervision.

If the degree project is awarded a Fail grade for the reason described above or for any other reason, the student is to be directed towards carrying out a further degree project. However, carrying out a new degree project means very limited opportunities for supervision.

## **Quality assurance**

The relevant faculty programme board has overall responsibility for the quality of study programmes. This responsibility covers also degree projects. Quality assurance is to be carried out as determined by the faculty board.

## **Exemptions**

If there are exceptional circumstances, an exemption can be granted from the above regulations.

Exemption to replace the oral opposition with a detailed written opposition can be granted after approval by the faculty programme board when all other elements for the degree have been fulfilled, the degree project has been submitted and there are exceptional circumstances. It is the examiner who applies to the faculty programme board for an exemption for written opposition.

Written opposition can be carried out in any of the following ways:

- The student makes a written opposition to a work done by another student, whose examiner then examines the opposition
- The student's examiner instructs the person in question to make a written opposition to a degree project that has already been examined by the examiner.
- In the case of a written opposition, there is no need for an initial account of the structure of the opposition.

Exemption from conducting the oral opposition on site at LiU (and instead conducting it remotely) with reference to exceptional circumstances is given by the examiner. Examples of exceptional circumstances are the lack of a visa to come to Sweden.

Exemption from carrying out presentation on site at LiU (and instead conducting it remotely) can be granted by the respective faculty programme board if there are exceptional

circumstances. Examples of exceptional circumstances are the lack of a visa to come to Sweden. It is the examiner who applies to the faculty programme board for an exemption from carrying out presentation on site.

### **Guidelines relating to examinations and examiners**

For details, see Guidelines for education and examination for first-cycle and second-cycle education at Linköping University, Dnr LiU-2023-00379 (<http://styrdokument.liu.se/Regelsamling/VisaBeslut/917592>).

An examiner must be employed as a teacher at LiU according to the LiU Regulations for Appointments, Dnr LiU-2022-04445 (<https://styrdokument.liu.se/Regelsamling/VisaBeslut/622784>). For courses in second-cycle, the following teachers can be appointed as examiner: Professor (including Adjunct and Visiting Professor), Associate Professor (including Adjunct), Senior Lecturer (including Adjunct and Visiting Senior Lecturer), Research Fellow, or Postdoc. For courses in first-cycle, Assistant Lecturer (including Adjunct and Visiting Assistant Lecturer) can also be appointed as examiner in addition to those listed for second-cycle courses. In exceptional cases, a Part-time Lecturer can also be appointed as an examiner at both first- and second cycle, see Delegation of authority for the Board of Faculty of Science and Engineering.

### **Forms of examination**

#### *Grades*

For degree projects and other independent work the grades Fail (U) and Pass (G) are to be used.

#### *Examination components*

The following examination components and associated module codes are used at the Faculty of Science and Engineering as part of the degree project:

- Grades Fail (U) and Pass (G) are to be used for the examination component assignment (UPG).
- Grades Fail (U) and Pass (G) are to be used for the examination components Opposition (OPPO) and Attendance at thesis presentation (AUSK).

For possibilities to alternative forms of examinations, the following applies (in accordance with the LiU Guidelines for education and examination for first-cycle and second-cycle education at Linköping University, Dnr LiU-2023-00379 <http://styrdokument.liu.se/Regelsamling/VisaBeslut/917592>):

- If the coordinator has recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.
- An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.
- Reporting of examination results: The examination results for a student are reported at the relevant department.

## Plagiarism

For examinations that involve the writing of reports, in cases in which it can be assumed that the student has had access to other sources (such as during project work, writing essays, etc.), the material submitted must be prepared in accordance with principles for acceptable practice when referring to sources (references or quotations for which the source is specified) when the text, images, ideas, data, etc. of other people are used. It is also to be made clear whether the author has reused his or her own text, images, ideas, data, etc. from previous examinations, such as degree projects, project reports, etc. (this is sometimes known as “self-plagiarism”).

A failure to specify such sources may be regarded as attempted deception during examination.

## Attempts to cheat

In the event of a suspected attempt by a student to cheat during an examination, or when study performance is to be assessed as specified in Chapter 10 of the Higher Education Ordinance, the examiner is to report this to the disciplinary board of the university. Possible consequences for the student are suspension from study and a formal warning. More information is available at Cheating, deception and plagiarism.

Linköping University has also produced a guide for teachers and students' use of generative AI in education (Dnr LiU-2023-02660). As a student, you are always expected to gain knowledge of what applies to each course (including the degree project). In general, clarity to where and how generative AI has been used is important.

## Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at <https://styrdokument.liu.se/Regelsamling/Innehall>.

## 4. Internship and Thesis mobility funding opportunities

Linköping University (LiU) offers various mobility and funding opportunities for internships and thesis Projects, both within Sweden and internationally, especially through EU programmes and internal scholarships. The scholarships are typically application-based and play a significant role for the students at the Technical faculty to finance their studies abroad.

### 4.1. ERASMUS+ TRAINEESHIP (INTERNSHIP OR THESIS ABROAD)

- LiU participates fully in the **Erasmus+ KA1** programme for both internships and thesis-related placements in EU/EEA countries.
- Typical scholarship amounts range from **€660–€710 per month**, depending on the destination.
  - Group 1 countries (Denmark, Finland, France, Germany, Italy, etc.) ~ **€710/month**
  - Group 2/3 (e.g. Spain, Portugal, Eastern Europe) ~ **€660/month**

- Funds may also include:
  - A **travel grant** (~€20–€50+ lump sum)
  - Extra travel days for "sustainable" transport
- Paid in two instalments: ~70% at departure and the remainder upon return.

*Useful details: internship must be 2–12 months, with  $\geq 60$  days for thesis-related work .*

## 4.2. RESEARCH PREPARATORY SCHOLARSHIPS (INTERNAL, LiU BKV)

For students enrolled in advanced-level preparatory research courses (e.g. prior to thesis):

- LiU's **Research Preparatory Scholarship** (through the Department of Biomedical & Clinical Sciences) covers the Swedish Board of Student Finance (CSN) support level.
  - Equivalent to **standard Swedish grant + loan** for full-time studies.
  - Granted for up to **two 20-week courses** (maximum 40 weeks total)
- Offers **stipends for living expenses**, tax-free, but not employment.
  - Note: no vacation, per diem, insurance beyond foreign visitor cover

## 4.3. OTHER FUNDING OPTIONS

- **LiU International Scholarships:** For fee-paying international master's students (non-EU/EEA). Covers up to 50% of tuition fees - only for master's programmes, not mobility. While primarily for tuition support, it may indirectly assist students planning international mobility by reducing financial burdens
- **Swedish Institute (SI) Scholarships:** external funding opportunities for international students (not LiU-specific), compete nationally; can include mobility support.
- **CSN loans and grants:** Even EU/EEA students may apply; loans may cover travel costs
- **Erasmus+: extra allowances:**
  - Up to **€250/month** additional if you bring a child
  - Support for students with disabilities
- **ECIU University Mobility Programmes** – supports challenge-based international projects and mobility. LiU is part of the European Consortium of Innovative Universities (ECIU), which offers students opportunities to engage in international projects and challenges. Through ECIU, students can participate in mobility programmes that may involve internships or thesis work across Europe.
- **Industry Collaboration Support** – LiU has strong ties with various industries, particularly in the Linköping Science Park, which hosts numerous companies. Many master's programmes offer opportunities to undertake internships or write theses in collaboration with these companies, both within Sweden and internationally (may include financial support depending on the partner).
- **Private foundations scholarships** – may cover expenses related to mobility and exchange.
- Moreover, some organizations that offer and announce master thesis can cover travel costs.

## SUMMARY TABLE

<b>Funding Type</b>	<b>Amount</b>	<b>Duration / Conditions</b>
<b>Erasmus+ Traineeship</b>	€660–€710/mo + travel & green-travel bonus	2–12 months, minimum 60 days (or 30 days with a virtual component)
<b>Research Prep Scholarship (LiU)</b>	CSN-level grant + loan (~Swedish standard living)	Up to 40 weeks
<b>LiU International Scholarship</b>	Up to <b>50% tuition waiver</b> (masters only)	1–2 semesters
<b>SI Scholarships &amp; CSN</b>	Varies by programme	SI / CSN rules apply

The various opportunities can vary between the different faculties.

Deliverable report  
 D4.2 - Report on design and implementation CBL  
 internship and thesis



Appendix 5  
 CBL Thesis and Internship definition form

<b>Title</b>	<b>CBL thesis</b>	
	<b>CBL Internship</b>	
<b>Master programme 1</b> <i>Description + aim + scope (short introduction describing the CBL thesis/internship (approx.150 words))</i>	<b>Master programme 2</b> <i>Description + aim + scope (short introduction describing the CBL thesis/internship (approx.150 words))</i>	
<b>Big Idea that is a Wicked / Real life Challenge</b>		
<b>ECIU Competence Taxonomy</b>		
<b>Challenge Provider i.e. the NGO, Company etc providing the challenge (in case of ELO being a challenge)</b>		
<b>Hosting Institution (name of ECIU member university)</b>		
<b>Master programme 1</b> <b>Academic Facilitator(s) (incl. contact details):</b>	<b>Master programme 2</b> <b>Academic Facilitator(s) (incl. contact details):</b>	
<b>Study Format (e.g., physical, hybrid, online):</b>		
<b>Study Period (start and end date) / semester:</b>		
<b>ECTS (European Credit Transfer System) Credits:</b> X ECTS		
<b>EQF (European Qualifications Framework) Level:</b>		
<b>Master programme 1</b>	<b>Master programme 2</b>	
<b>Prerequisites and requirements</b>	<b>Prerequisites and requirements</b>	
<b>Learning Outcomes:</b> On completing the challenge, a learner is able to:	<b>Learning Outcomes:</b> On completing the challenge, a learner is able to:	
<b>Assessment Strategy (e.g. how are the learning outcomes being assessed and graded):</b>  LO 1: LO 2: LO 3:	<b>Assessment Strategy (e.g. how are the learning outcomes being assessed and graded):</b>  LO 1: LO 2: LO 3:	

LO 4:

The final mark is calculated as follows: ....

LO 4:

The final mark is calculated as follows: ....

The CBL Thesis and Internship definition form was adapted on the basis of the table for ECIU Micromodules and ECIU Challenges definition.